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APPLICATION OF ACOUSTIC SIGNAL

PROCESSING TECHNIQUES TO SEISMIC DATA

by

Cynthia E. Irvine

June 1977

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Application of Acoustic Signal Processing Techniques to
Seismic Data

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Application of Acoustic Signal Processing Techniques to Seismic Data

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Abstract

In order to obtain an effective discriminant between earthquakes and explosions, techniques which originally had been developed for acquistic signal processing have been applied to seismic data. These techniques include Fourier analysis and related applications software as well as interactive orannics displays of the data. A numeric has been obtained which may provide a useful discriminant between earthquakes and explosions.

In conjunction with this investigation, a large amount of seismic data has been consolidated. These data are distinused.

Keywords: signal processing, seismology, detection, discrimination

I. Motivation

An effective system used to monitor nuclear testing by all members of the world community is a prerequisite to obtaining a meaningful treaty to either limit or ban nuclear testing. Clearly, unrestricted on-site inspection by an unbiased aroun of observers provides a most effective way of assessing the activities of all parties involved. Peareteably, the competitive aspect of human nature may render this method of investigation useless and reliable alternative techniques must be found to monitor clandestine nuclear testing.

The measurement of the density of certain radioactive materials in the atmosphere has been used as an indicator of nuclear test activity. Atmospheric testing or leakage from underground tests can cause a detectable increase in the atmospheric acuntance of radioactive waste products. By following the movement of these radioactive clouds, it is possible to localize their origin. Atmospheric evidence will be nugatory when an underground test is completely contained.

Cratering, a hy-product of surface testing on the subsidence of chimness produced in underground tests, may be visible on some satellite photographs. However, cratering can be caused by natural processes and by various nonnuclear man-made projects on it can go undetected.

The detection of seismic signals caused by explosions

provides yet another means of monitoring nuclear test activities. Not all seismic signals resulting from explosions can be detected. Seismic signals are detectible from both subterranean and surface explosions. The Paker test in the Bikini atoll in July 1940 was fired underwater. Detectors in California recorded the event. The transfer of energy from surface tests to seismic waves is only partial (Pichter 1958). Some explosions are too small to be detected and others are indistinguishable from natural seismic events such as small earthquakes or rockslipes.

This report presents the results of a program to improve the reliability of the seismic detection of nuclear explosions. A seismic monitoring system for explosions must satisfy three objectives: first, each event must be detected above random noise; second, it must be located; and, finally, it must be distinguished from naturally occurring seismic activity.

II. Review

Consider some of the facts known about earthquakes and explosions and their detection at teleseismic distances.

Seismic events are characterized by a variety of waves emanating from their foci. The three most powerful and best known of these waves will be reviewed.

The first signals from a seismic event to arrive at a distant detector are the undar crimae or P waves. Vibrating in the direction of condensation, these longitudinal or "compressional" waves are able to benefitate the earth's crust, mantle, and liquid core.

Undae secundae, S waves, propagate at a lower speed than P waves. They cause transverse or "shear" motion in the surrounding medium; in other words, they set up oscillations perpendicular to their direction of propagation. Because of their transverse nature, S waves are unable to propagate through liquids and to not penetrate the earth's core.

The third type of seismic wave has been given the name surface wave because it travels along the surface of the earth rather than deep in its interior. They are guided waves following a channel between two discontinuities one of which is the earth's surface. The other is the Mohorivicic discontinuity. It delimits the base of the continental crust and is a point where 3 and 9 waves undergo dramatic

velocity changes due to a transition in the elastic properties of the medium.

It is necessary to point out that not all types seismic waves are seen with the same relative strengths for all types of seismic events. Typical earthquakes are caused slipping or "shearing" along a fault. Thus the Sor "shear" waves resulting from an earthquake are quite strong. The situation for explosions is quite different. They are essentially point source impacts and show a marked reduction in strength of the S waves relative to the P waves. In addition, surface waves from exclosions are often immercentible. The natio of P wave energy to S wave energy or the ratio of compressional waves to surface waves can provide an indication in the properties of the generating event (Leet 1952; Lacras 1969). "Infortunately, the relative amplitudes of the different types of waves do not yield a foolproof discriminant between earthquakes and explosions. A large explosion near the earth's surface may cause strains which will conduce S waves. Also, since the amplitude of surface waves is proportional to exp (-H), where H is depth, many deen focus earthquakes show on surface waves.

The detection of an event will decend upon the amplitude of the signal received by the seismometer. If the signal is small and the detector insensitive, then, without the proper use of signal processing techniques, the event may pass unnoticed. It is possible that the detector has not been "tuned" to the dominant frequency of the signal, or that the

mation at certain frequencies. For small events, the balance will be weighted against detection.

The amplitude of the sponal received is proportional to the energy or vield of the event. Mowever, the correlation is not exact since there is a strong dependence of the amplitude of the separate sponal upon the type of material in which the event pricipates. Consider alluvium, an example of which is the material reposited in river teds. Ten times the explosive energy will be required by an event occurring in alluvium to conduce the same effect at the detector as an event occurring in a proportion of pricipal transfer the separate can also be attenuated by the material in which the separate event is excepted, its incation at a replicatedly favorable site enhances the likelihood of detecting small events.

Another factor influencing the detection of seismic signals is prockaround noise. This can be autre significant in heavily occulated areas, where trucks, trains, construction and many other aspects of human activity numb noise into the around. Isolated areas are by no means all free of high levels of packaround noise. The counding of the sunf in coastal areas on the transmission of wind energy into the dround by forests can also introduce significant amounts of packaround noise. Yany sources of microseismic noise appear to be unavoidable. The evidence suggest that large weather systems cause an increase in microseismic noise.

To minimize both unise and artenuation, defectors are pest located toward the centers of continents, often in regions of drante. L434, the Large Aperure Seismic Array, located near Atllings, Montana, is a good example of a modern seismic detertion system. Instead of merely one seismometer, it consists of 21 clusters or suprarrays each containing 25 seismometers. Its diameter is 200 kilometers. Each seismometer is quited approximately of meters underground to minimize the effects of surface noise. Presently only 13 of the suburrays are in use. Recause it is so large, it takes a measurable time for signals from many Eurasian sites to traverse the L454 array. It is cossible to calcumbate time shifts in the data received at each seismometer so that the entire array appears to be "steered" in a particular direction.

Discrimination of exclosions from earthquakes can usual—

ly he accomplished by a combination of the four methods dis
cussed below.

A. Location of the event

The velocity of seismic waves through the earth is fine ite; therefore, a more distant seismometer will receive the signal from an event after a nearen one. Aith data from several seismometers or seismic arrays scattered about the earth, triangulation methods can be used to locate an event. Inaccuracies in location are contributed to primarily by local irregularities in seismic velocities caused by

variations in conditions of the earth's upper crust and mantle. Fach detector may be located in geologically dissimilar regions and the rocks beneath the event itself may nave different propagation velocities in different directions.

Not all regions of the earth have the same seismicity. The "ring of fire" or circum-Pacific helt defines a very active region. Hardly a year basses without an earthquake or volcano wheaking havor in one of the many countries fronting on the Pacific. Other regions are seismically inactive and include the Canadian shield, the brazillian shield, western Australia, the Andara shield of northern Asia, and most of Africa. (Dott and Sarten 1976). An event located in one of these stable areas must be suscepted of being an explosion. Of course, location alone is insufficient to determine the nature of the event, but, when combined with other data, it often provides strong circumstantial evidence for discrimination.

b. Complexity of the signal

Explosions are hasically simple events. A force emanatering from the explosion's focus impacts upon the surrounding medulin causing the cropagation of seismic energy through the earth. Their scatial and temporal locations can be well defined. On the other hand, earthquakes are rather complex. The event occurs along a fault which may be many kilometers in length and is not instantaneous at every point along the

tault.

The complexity of the signal received at the seismometer is often an indication of the genre of the original event. An explosion usually has a very simple signature while those of earthquakes are much more complex. This method is not foolproof. A nepulous zone of simple earthquakes and relamtively complex explosions clouds discrimination.

C. Denth

Denth also provides a means of distinguishing the two types of events. The deepest earthquakes occur 750 kilomem tens beneath the earth's surface and about 30 percent of all earthquakes take place at depths below 50 kilometers. It would be impractical if not impossible to drill holes of that depth in which to place explosive charges. Unfortunately, depths for shallower earthquakes sometimes cannot be determined with the accuracy necessary to enable their discrimination from explosions.

D. Relative strengths of S. P. and surface waves

As mentioned previously, the S and surface waves are not strong in explosions and thus there is a third criterion by which earthquakes and explosions can be distinguished. This too is an imperfect method, particularly when working at or near the limits of the detectors. S and surface waves can be buried in noise and earthquakes may be indistinguishable from explosions. Several methods have been postulated which

can be used to evade or obfuscate detection of nuclear testing. One technique used to diminish the apparent amplitude of an explosion is to set the charge off in a large cavity. As in the case of a surface test, less energy is transmitted to the ground. By setting several explosions off along a line and in a well timed sequence, it is possible to increase the complexity of the signal recieved sufficiently to make it appear like an earthquake.

In this paper a possible new method for distinguishing explosions from earthquakes will be presented. It does not depend upon depth, the detection of S or surface waves, or the appearance of the P waves in the time domain. Through examination of the P wave signatures in the frequency domain it has been shown that the energies delivered in certain frequency intervals differ for earthquakes and explosions. By taking advantage of these differences, a numerical discriminant was reveloped.

The report includes a discussion of the data received, its value as a large collection of seismic events, and questions regarding its integrity.

III. Equipment

The Computer Laboratory of the Naval Postgraduate School is designed to provide the equipment necessary to conduct research in the areas of digital signal processing and computer science. A number of computers within this laboratory were used for this project.

A. Adage AGT-10

Designed for interactive graphics display, the Adage AGT-10 system consists of a display screen which is refreshed 40 times per second, a main computer with 16K of memory, a disk drive for additional storage, and a teletype. A set of 1p function switches, a joystick, six control dials, a lightpen, and font pedals allow a variety of user interactions. Its 30 bit word length and well designed programming language make program execution rapid. Thus there is little perceptible delay between an interactive command and its product on the screen.

with an interface to the SDS 9300, it is possible to obtain interactive graphics display of large signal processing programs.

B. SDS 9300

The Scientific Data Systems SDS 9300, is a medium sized second generation computer. It was the nucleus for the majority of the signal procession done for this research. It has a 1.75 microsecond cycle time, 24 bit words, and 32K of

memory. Included among its peripherals are: two seven-track tape drives, a card reader, a line printer, a drum for mass storage, and a teletype. This computer is interfaced to the Adage AGT-10, the CSP-125, and the Comcor CI=5000, all of which were used.

Languages available to SDS 9300 users are FORTRAN and an assembly language called Metasymbol. Recause of its many interfaces, a variety of FORTRAN callable subroutines is available for intercomputer communications.

C. CSP-125

The CSP Incorporated CSP-125 is a 16-bit digital computer with a cycle time of one hundred nanoseconds. It is designed to rapidly perform the calculations necessary for signal processing of massive quantities of data. Of its 16K of memory, 4K consists of logically equivalent IC and core memory. Through its interface with the SDS 9300, the CSP-125 can be sent time data. The transform is computed in the CSP-125 and the spectrum is delivered to the SDS 9300.

The CSP-125 has the caribility of doing transforms either through software or its hardware box. Due to scaling problems, the latter has not been used extensively.

D. Coment CI-5000

A hands-on analog computer is available to users of the laboratory facilities in the form of the Comcor CI=5000. Programming is some on patchhoards. The use of the CI=5000

in this research was quite limited and very simple. By using its interface with the SDS 9300, chart recordings of the digitized time data were obtained.

E. PDP 11/50

The PDP 11/50 is a state of the art fourth generation 16 bit digital computer huilt by the Digital Equipment Company. The system at the Naval Postgraduate School is more complex than that found at other installations since two PDP 11/50's share a section of common memory and acess three 80 megabyte disc drives through a dual port controller. The UNIX timesharing system developed at Bell Laboratories is currently being used. Because these computers have been subjected to extensive on-going system developement, they did not provide a secure environment in which to undertake a project involving a large data base.

One of the peripheral devices to the PDP 11/50 system is the Versated Printer/Plotter. It was ideal for obtaining hardcopy of the graphics displays of the AGT-10. The necessary software was written so that an output table from the SDS 9300 could be mounted on the PDP 11/50 and the display data plotted with the Versated.

IV. Software

A series of computer programs was written or modified to allow a large data sample to be analyzed. In this section a brief description of this software is given. For more details about each program, the reader is referred to Appendix A.

A. READDATA

This program was written to transcribe the RCD data tape provided by ACDA into a more compact binary form which was also compatible with existing signal processing and display programs.

A standard header record was designed and all signal processing programs were written or modified to conform to the universal header record.

a. nsn

Designed to disclay the unprocessed seismic waveforms, the Digitally Simulated Oscilliscope or DSO program takes full advantage of the interactive features of the SDS 9300/AGT graphics system. With the capibility of handling up to ten seismocrams simultaneously, its options are selected by using the function switches on the AGT-10 and include: namelist, timesween, amplitude scaling, trigger, variable timehase, and spotlight.

C. DXD

Essentially the same as NSO except for changes in the input parameters and data, the Digital Transform Display or DXD allows the simultaneous display of as many as ten transforms. Transforms are read into the computer and stored on the drum. It is then possible to sweep in any direction through the transforms either in frequency or in time.

Its options are similar to those of DSD and include: namelist, frequency sween, timesween, amplitude scaling, tringer, variable frequency resolution, and sportlight.

D. MIFTY

Aritten to facilitate the handling of the numerous magnetic tages involved in the project, NIFTY consists of tightly coded assembly language subroutines covering all aspects of tage manipulation. A master program, written in FORTRAN, may be compiled with the subroutines for standalone or overlay use or the subroutines can be used in computation with arbitrary programs.

Untions available to the user of MIFTY include: reading and writing tapes in either &CD or hinary; skipping forward or packward a specified number of records or files; dumping a tape our onto another tape or onto the lineprinter; writeing end-of-file marks or tapes; and rewinding tapes.

E. XEARY

Designed to take fast Fourier transforms of up to 1024 points in length with a user specified increment between transforms, this program can be used stand-alone or, with slight modification, as a subroutine. By taking full advantage of the drum peripheral to the SDS 9300, this program was designed to minimize execution time when used as a part of an interactive graphics display package.

The user can choose to have an average noise transform computed from the average of the first k transforms. These are used to compute the deviation from the mean of the original transforms.

$$x(f) = \begin{cases} x_{\underline{i}}(f) - \overline{x}(f) \\ 0 & \text{if } x_{\underline{i}}(f) - \overline{x}(f) < 0 \end{cases}$$

where

$$x(t) = 1/k \sum_{i=1}^{k} x_{i}(t) \qquad k < N$$

This proceedure can, in many cases, result in signal enhancement.

F. ON-LINE-FSP

The Extended Signal Processing program was developed to provide the user with a versatile display of transformed signals in three gimensions through which the dynamic characteristics of the signals in both the frequency and time domains could be studied. Originally designed for use with a few long data sers, FSP underwent extensive modificatins to allow it to be more efficient when processing the numerous short seismic data sets. An option was included to allow the transforms to be preformed while the interactive graphics display was in progress. Other features added to the program were the apility to handle multiple file input tapes and a hard-cocy option. The hard-copy option was particularly useful when making comparisons of the qualitative aspects of various events. The following ortions are available to the user: namelist, input halt, amplitude scaling, frequency sweep, scotlight, hard-copy, and harmonic display.

G. BANDS

This program was written to aid the search for a quantative discriminant between earthquakes and explosions. Transforms were taken on-line and, within specified frequency bangs, a numeric was found which was chosen to be proportional to either the amolitude or the power of the Fourier coefficients within that window. The algorithm is essentially a simple integration:

Band factor $i = \sum_{j=SBi}^{EBi} x_j \times resolution / normalization factor for window widths$

where

SPi is the starting frequency of hand i

x) is either the amplitude or power of the Fourier coefficient.

and if no normalization is desired, the normalization factor is set equal to !.

The results were stored on magnetic table and could be processed through an output program. RSLTS, which allowed the user to choose several options for normalization and interconparison of the data and obtain a hard-copy print out.

Program octions included a choice of either amplitude or power results, normalization with respect to window width, noise subtraction, and output normalization with respect to any frequency band for the spectra collectively or individually.

H. EGPLOT

EQPLOT, the hard-conv plotting program, was written in C, the high level programming language available within the UNIX operation system, which has been implemented on the PPP-11/50. The hard-conv output was obtained on the Versater printer/plotter. Annking essentially as a black-hox

program, EQPLOT took the results of the ESP hard-copy option and formatted them for plotting.

The hard-cnpv capacility we have developed allows the user to make detailed comparisons between the spectral characteristics of earthquakes and explosions. The user is not forced to help on the remembered appearances of interesting event after they have disappeared from the AGT-10 screen.

V. Observations

Most explosions can be distinguished from earthquakes using a combination of the following: location, complexity, depth, and the presence of S and surface waves. There are, however, exceptional events. The discrimination of these was a motivation for this research.

To be meaningful, a discriminant must be valid for typical as well as extraordinary events. Consequently, a large sample of events from many sites and possessing a range in depth and magnitude was examined. To eliminate variations caused by using data optimined at several sites on many different kinds of derectors, only data from LASA were used.

Two sets of data were obtained: a cody of a tape, sent by Control Data Concoration, duphed from data in the files at MIT and elsewhere and approximately 110 events through ACDA. The MIT data consisted of 327 events from 1966 through 1974. Of these, 215 included steered them sums and data from four suparrays, either £1, £2, £3, and £4 or £1, £2, £3, or £4. The ACDA data were sent by Teledyne Georech in Alexandria, virginia and included 25 explosions and 54 earthquakes. These data included all of the operative subarrays at LASA but not the main heam.

Preliminary analysis was based upon the application of graphical display rechniques originally developed at the Naval Postgraduate School for acoustic signal processing.

Software was potimized for use with seismic data.

A selection of events was processed using On-Line-ESP. with its dynamic caritilities and nard-copy option, it was possible to tell that the frequency distributions of explosions were quite different from those of earthquakes. Figures 1 = 7 illustrate this point.

It was found that certain test sites possessed distinctive signatures on the spectra channed from transforming the LASA data. In carticular, events originating from Semi-palatinsk were guite unique and it took only a little practice before tost events from that location could be identified solely on the basis of their spectra.

Software was developed to aid in the search for a guantitative discriminant based on the spectral differences between the events. It was found that, for some events, signals were detected at the highest attainable frequencies. Since the sampling rate determines the highest reliable frequency on a transform, subsequent discussions will be based solely upon subarray data from the MIT table having a sampling rate of 20 samples per second. Only events prior to 15 April 1969 were truly sampled at 20 samples per second. The reader is referred to the discussion of the data for more information regarding the sampling rates. The sampling rates of the data were programmatically verified.

By processing the data with the subroutine BANDS, the sums of the amplitudes of the Fourier coefficients within

several spectral windows were found. The spectral windows chosen were:

To accentuate the resconse in the larger high frequency wine dows, the sums were not normalized with respect to window wight. However, to aid comparison of events, the results for each window were normalized with respect to the results for the 0.5 to 1.0 Hz window.

A good correlation was found between the amplitude in the 0.0 to 1.0 Hz window and the magnitude, m , of the event. (Figure H) The data on explosions and shallow focus earthquakes were separated into anough according to their unnormalized amplitudes in the 0.0 to 1.0 Hz window. The groups were as follows:

A
$$0.1 - 0.5 \times 10^{5}$$
,

b $0.5 - 0.499 \times 10^{4}$,

C $0.1 - 0.499 \times 10^{4}$,

D $0.5 - 0.499 \times 10^{3}$, and

E $0.1 - 0.499 \times 10^{3}$.

Means were calculated for each r within each of the five arouns. Despite the fact that the normalized response in the windows covering 1.0 to 4.5 Hz was a function of the magnitude of the event, a simple discriminant was attaineable.

we found that, for all explosions, the response in the $1.0 \sim 1.4$ Hz window was preater than that in the $0.6 \approx 1.0$ Hz window. The reverse was true for earthquakes which also had higher means at $0.4 \approx 0.6$ Hz than did explosions. A discriminant can be constructed from the simple combination of these responses and is written as:

$$u_{j} = \sum_{i=1}^{8} n_{i} r_{ij}$$

where realization factor depending upon the amplitude at 0.6-1.0 Hz or the magnitude, π , of the event.

The discriminant have strongly negative values for essentially all deer and shallow focus earthquakes and zero to strongly positive values for all explosions. Signals arriving at LASA from Nevada Test Site, NTS, explosions yeilded anomalously negative values; however, because of the proximity of NTS to LASA, they are not teleseismic. It may be necessary to consider local crustal conditions when using spectral criteria based on such nearby events.

Inspection of the data and clots of amplitude versus frequency revealed that earthquakes with magnitudes below 5.5 have a common high frequency asymptote, while larger earthquakes have a higher, but canallel, high frequency asymptote. A factor largely responsible for this result may be the increased source persistence of larger earthquakes. No high frequency asymptote was found for explosions. This does not preclude the possibility that such an asymptote exits; nevertheless, within the frequency range studied in this project, none was found.

Graphical analysis of the earthquakes and explosions using tentative estimates of the attenuation resulted in estimates of the source spectra. It is possible to explain the low D values obtained at several sites as being the result of differences in attenuation at the site. For example, lower D values will result when the explosion takes

place in softer rocks. The lower than normal D values for Novava Zemlya can be exclained by the fact that these few very large explosions were dragged down while being averaged with other members of Group A. By separately reanalyzing these events, it is possible to bring their D values up to more positive levels. Also it should be noted that for such large events, the roll-over in the source spectra occurs at frequencies less than 5 Hz. This will contribute to somewhat lower D values. The low D values for the NTS explosions can be exclained as being due to frequency sensitive attenuation.

Given data between 6 and 9 Hz, it is nossible to evaluate attenuation effects for an arbitrary event and, if its attenuation has a higher frequency dependance than normally found for earthquakes, a modified discriminant can be calculated by first adjusting the data to give a high frequency dependancy similar to that of an earthquake and then proceeding as usual.

It may also be cossible to compute yields for explosions from uncalibrated sites. Once an event has been determined to be an explosion, it is cossible to force the data to fit the observed spectra for Site A at Semipalatinsk. The resultant amplitude near 1 Hz is proportional to magnitude from which yield can be found using a known relationship between yield and magnitude.

For a more detailed discussion of our data analysis, the

reader is referred to Appendix B which contains a presentation by Evernden (1977) of preliminary findings taken from this study.

VII. Data

As mentioned above, it is necessary to discuss the data. One would expect that the number of observations that have been collected in this program of both earthquakes and explosions would provide seismologists with a useful data-base for further research. However, questions as to the integrity of these data have been uncovered. It is felt that any research based on them is rendered suspect, including that reported in this paper and consequently the paper of Evernden (1977), which describes this study. Below are discussed some of the revelations that gradually surfaced.

A. Sampling Rate

In October 1975, a conv of a tane that had been dubbed from events selected from the data library at MIT's Lincoln Laboratories and elsewhere was received through Control Data Corporation and Col. Pussell Ives. Enclosed with the tape was a complete description of its format. The data for each event included three records of header information. Although great care had been given to the location and the timing of the event, no information was given regarding the sampling rate of the data. Verbal inquiry resulted in a report that all of the data were sampled at 20 samples per second.

As the data were being processed, a difference between the older and more recent data was noticed. Concurrent with the processing of the CPC data J. Evernden obtained from a

colleague at MIT a face with a few events on it most of which duplicated those on the CDC tape. When processing identical events on the MIT and CDC tapes we found large differences in the results. In particular, there appeared to be large differences in the frequency distributions of the spectra. At that point, difficulties with the sampling rates were suspected. A few calls to Boston and Alexandria yeilded the following tale.

At its inception LASA seismometers were sampled at 20 samples per second and the digitized data were sent to Wash-ington where they were stored. Copies of the data were sent to scientists working in the area of seismic surveillance. The published work of many of these scientists lead to the general helief that there was no information bove 5 Hz for either earthquakes or explosions (Philop-Ford report refunknown). Faced with the storage of massive quantities of apparently over sampled data, the decision was made to halve the sampling rate. On 15 April 1969 LASA data were decimated.

By 1960, however, a large quantity of software had been written. MIT wished to obtain data compatible with the existing software, so, at their request, Teledyne sent to MIT data which were pseudo-sampled at 20 Hz. To obtain pseudo-sampled data, two adiatent points were averaged and the resulting intercolated point was inserted between them.

The reaction to this information was complete dishelief.

Quite a mit of horh mannower and computer time had been spent trying to analyze data sampled at a different rate than had been reported. A discussion with R.W. Hamming confirmed what was intuitively physicus, that high frequencies in the pseudo-sampled data would be depressed relative to high frequencies in data that were actually sampled at 20 Hz.

To be off by a factor of two when analyzing the spectra has deliterious consequences. The Nyquist frequency has been halved, thus a spectrum which appears to cover N Herz actually covers only N/2 Hertz. The band integration analysis would veild meaningless results unless the true sampling rate of the data was known and used.

H. Filterina

At the request of ACDA, an attempt to detect a few very small events had been planned. A tape, L 16283, was received from ACDA. It contained two events: one in December 1974 and the other in April 1975. It was reported that all of the data had been sampled at 20 Hz.

Preliminary analysis of the data using the ESP interactive graphics display program showed that most of the detectors had anomalous spikes at a frequency of about 5 Hz and that the amplitudes gid not fall of with increasing frequency in a manner characteristic of a detector response curve. It appeared to be filtered. Again, P.W. Hamming applied his practiced events the data and agreed that they were rather

peculiar.

Discussion with ACDA ultimately revealed that the data nad been filtered at 5 Hz. The type of filter remains unk-

Shortly thereafter, it was discovered that, given the start time of the nata and the start time of the signal for the event, the analysis lead to one of two conclusions: first, that the time window of the data did not inculde the event or, second, that the data were actually sampled at 10 dz.

The situation could have been saved by resampling the original analog data without the use of filters and at an appropriate sampling rate. Unfortunately, the analog tapes had been recycled and the original data were lost.

C. Data Acquisition

The length of time, over a year in the case of the data on tane L 15283, to obtain much of the data was quite long. With the delay between the request for and the acquisition of data shortened, it may be nossible to have less information pertaining to data specifications lost or forgotten. Of course, requests for data should be reasonable in size.

One product of this study is a set of ascii tapes of the data received to investigate seismic detection and discrimination. The tapes include the CDC data, the ACDA supplied earthquakes, and the ACDA supplied explosions. Data

recorded prior to 15 April 1969 were sampled at 20 Hz. Data following 15 April 1969 were sampled at 10 Hz. Any preprocessing to which the data were subjected prior to reciept at the Naval Postgraduate School wa neither reported nor uncovered; therefore, the user must beware and work with this data at his own risk.

VIII. Conclusions

we have described the software tools built to analyze the large quantity of seismic data involved in this project. Using this software on short period seismic data, we have been able to obtain a numeric which may provide a discriminant between earthquakes and explosions. This discriminant appears to be effective against multishot events and, given adequate information about the path, it may be possible to discriminate events only a few degrees from the detector

The adequacy of the data we received has been discussed. We feel that every step of the data acquisition and analysis process should be sufficiently documented so that subsequent users will know the exact status of the data they receive. We have been in the unfortunate position of recieving data that were vaquely specified.

Figure Cantions

Figures 1-7. These are plots made with the hard cony option of ESP of an explosion, a deen focus earthquake and a shallow focus earthquake. Notice that high frequencies are more pronounced for the subarrays than for the beam in all cases and that the explosion shows more high frequency information.

Fig 1. CDC data set event #5, Heam. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig. 2. COC data set event #5, subarray F2. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig. 3. CDC data set event #5, subarray F3. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig 4. CDC data set event #202, Beam. Deep focus earthquake in the Hindu Kush region on January 20, 1972 having a magnitude of 5.0.

fig 5: CDC data set event ± 202 , subarray F1. Deep focus earthquake in the Hindu Kush region on January 20, 1972 having a magnitude of 6.0.

Fig. 6. CPC data set event #210, Ream. Shallow focus earthquake in the Andreanof Tslands of the Aleutian arc on March 20, 1973 having a magnitude of 6.0. Fig 7. CDC data set event #210, suparray F1. Shallow focus earthquake in the Angreanof Islands of the Aleutian arc on March 20, 1973 having a magnitude of 5.0.

Fig A. Amplitude within the spectral window 0.6 to 1.0 Mz versus magnitude of the event for explosions and earth-quakes.

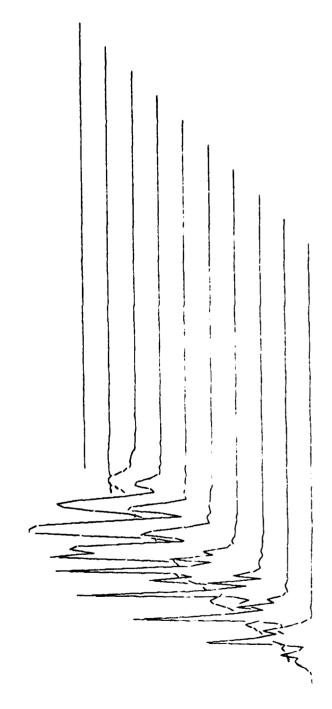
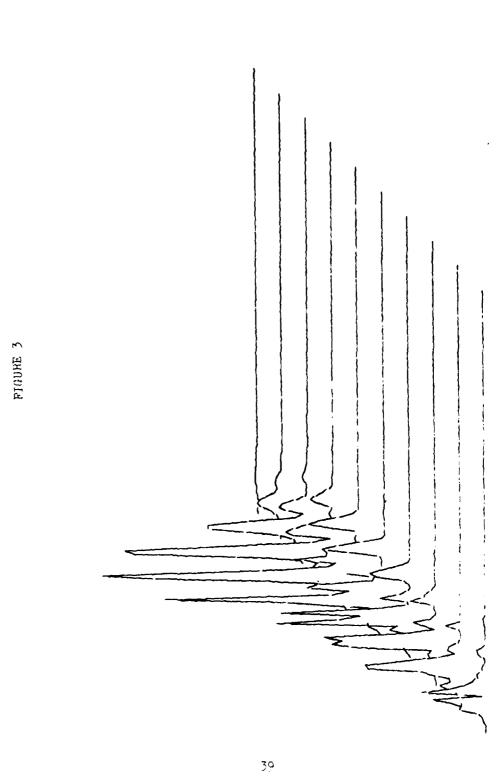
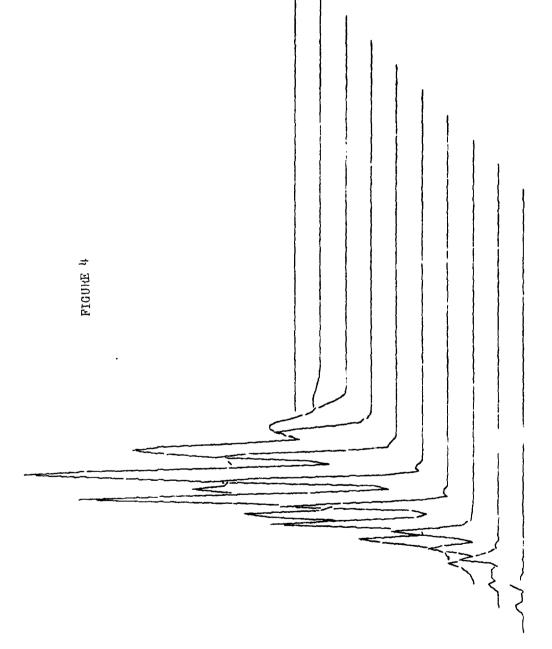
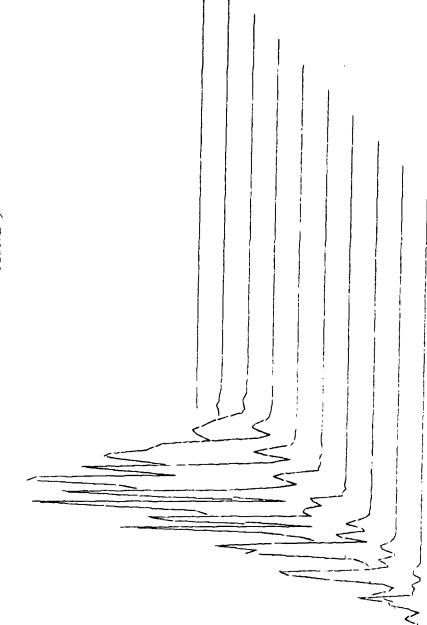


FIGURE 2





цΟ



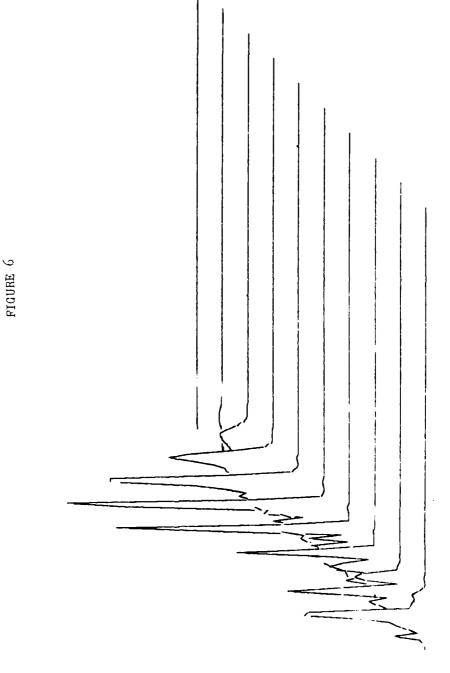
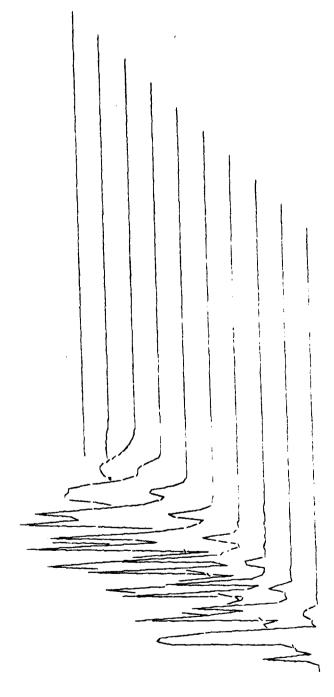
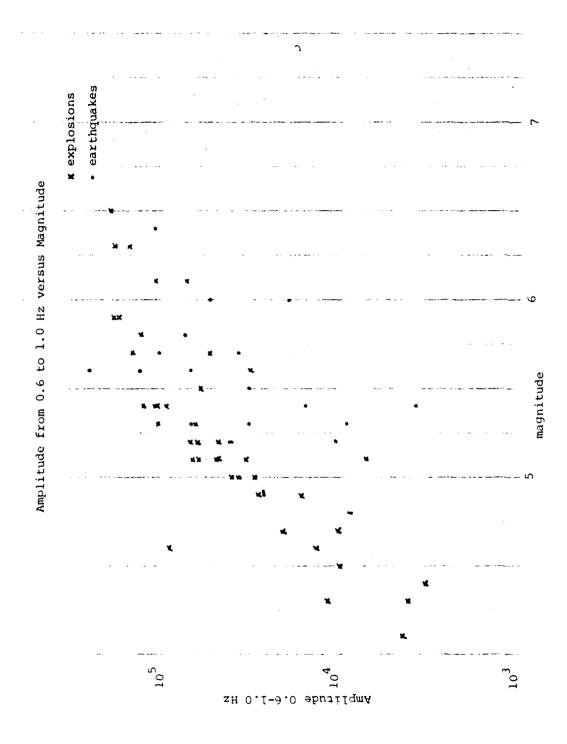


FIGURE 7





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Appendix A Software

Digitally Simulated Oscilliscope

Designed to display the unprocessed seismic waveforms, the Digitally Simulated Oscilliscope or DSO program takes full advantage of the interactive features of the XDX 9300/AGT graphics system. With the capibility of handling up to ten seismocrams simultaneously, its options are selected by using the function switches on the AGT-10 and include:

i. Namelist

The user is allowed to modify the value of any parameter specified as a namelist variable in the FORTRAN code. When this option is selected, a cursor appears on the 4GT-10 screen. Using the AGT teletype, the operator types the name and value of the variable to be changed. Each character typed will appear on the screen. The line-edit facility provided by the AGT-10 system allows the user to modify the current line. When it is satisfactory, a carriage return signifies its completion. Several namelist parameters may be rodified. When the operator is finised, a * carriage return will turn off the namelist option and normal program execution will resume.

ii. Timesweep

Hecause the maximum number of points that can be plotted in the x direction is limited to 200, it is

impossible to view most seismodrams in their entirety and at a resolution of one sample point per plot point. The time sweep option allows the operator to inspect any time segment of a seismodram. There are several ways of exercising this option.

a. Coarse Timesweep

This allows the operator to use the control dials to sweep both forward and backward through selected seismograms rapidly.

b. Fine Timesweep

Similar to coarse timesweep, this option serves as a vernier. Again the control dials are used to position the time trace.

c. Autosween

All seismograms will be swept in time simultaneously with this option. The timesween is continuous
until the option is turned off and it is possible to
move either forward to backward through time.
Pointers assure that the display will not run off
either end of the seismogram.

d. Single Sweep

Instead of sweeping continuously, this option is automatically turned off after completing one timesweep of the data. Again the user chooses to

sweep either forward or backward across the data.

iii. Amplitude Scalina

As an alternative to changing the data's scale factor through namelist, it is possible to use a control dial to modify the scaling of the data. This option will remain in effect until it is turned off by the user.

iv. Irioger

By using a combination of function switches and control dials, it is possible to set a positive or negative amplitude trigger level and to trigger either from the beginning of the data or from the current lead point of the data being displayed on the AGT+10. This allows the user to find large fluctuations in the data without inspecting the entire seismogram.

v. Timebase

It is possible to alter the displayed resolution of the data by varying the timebase with a control dial. An increase of resolution to ten points per seismogram is possible and, by an averaging process, the resolution can be decreased so that the entire seismogram just fills the screen.

vi. Spotlight

A moveable highlight is available so that the user

can acctentuate interesting features of the display. Spotlighting is also useful when searching for interest—ing features since the operator is subconciously forced to pay more attention to the highlighted region.

I. DSO - Operating Summary

DSO may be used on a stand-alone hasis on as a segment in a larger overlay job. To begin using DSO, the operator must transfer program control to DSO. This may be done by reruning a core image of DSO from a save tape when using standalone DSO or, in the case of an overlay job, by setting appropriate flags in the control program. It is necessary to prepare the AGT-10 for DSO execution by calling the "GATED" graphics package.

The data tace, which has been prepared with the standard header records, is mounted on the appropriate drive (Unit 2).

Because there are many namelist variables which must be specified when running this program, it is conviewent to prepare a card deck containing namelist input information. When the program requests input, instead of laboriously type ing in all namelist parameters, the user types the following on the XDS 9300 teletype console:

ICAPO = 1

c/r *

II. Function Switch Definitions

Once the program has been initialized, the AGT-10 console, function switches, and control dials are used for program control. Below are listed the function switch definitions. When control dials are to be used in conjunction with a particular function switch option, they have been indicated in parentheses.

3 - namelist input

This allows the operator to modify namelist parameters from the AGT-10 teletype console.

4 - dial overlay option

Since there are only six control dials and since a maximum of ten seismograms can be displayed simultaneously, this function switch allows the operator to use one control dial for more than one seismogram when the sweep option has been selected.

5 - coarse sweep (all dials)

Each seismogram can be swept individually in time and is governed by the control dials.

b = fine sweep (all dials)

This serves as a vernier to the coarse sweep option.

For both the coarse and fine sweep options, function

switch 10 is used to reverse direction.

7 - scaling (dial D)

As an alternative to namelist, amplitudes may be scaled manually.

8 - trigger (dial C)

The control, dial is used to set the triager level, for which there is a numeric display on the screen, and function switch 10 is used to change the sign of the triager level.

9 = auto sweep

This option causes continuous time sweeping of all seismograms. Function switch 10 will reverse the direction of the sweep.

10 - sign option

Used in conjunction with function switches 5, b, 4, 9, and 11, the sign of the timesween direction or of the trigger amplitude becomes negative.

11 - auto sweep once

A single time sweep of all of the data is executed. The sweep direction is reversed by selecting function switch 10.

12 - span (dial C)

This option expands or contracts the timebase of the display.

13 - spotlight (dial A)

The control dial is used to position the spotlight at the desired location. When the function switch is turned off, the highlight will remain on and stationary.

14 - remove spotlight

This option turns off the spotlight.

16 - tape input

This function switch allows take input of inverse FFT's. It was not extensively used in this project.

When several function switches are on simultaneously, a function switch precedence will cause certain options to be overridden. Switches 7, 6, and 5 are listed in decending order of precedence.

III. Control Parameters

The namelist variables are listed below. For each, the range and default value have been given in parentheses. 'I' has been used to indicate array variables all of which can have up to ten entries. Real variables are indicated by the use of decimal points.

4. Original Data Specifications:

NCH(1-?;2) number of channels

MP(?;0;I) maximum number of

points on the seismogram

SR(?;20.0) original sampling rate of data in samples/second

ITO(?,?,?;0,0,0;I) start time of the data in hours, minutes, and seconds

IDGRAM(?;0;I) seismogram identification number

B. Mechanical Data Specifications:

ICH(?;1) channel to be displayed

LREC(1-1024;1024) length of input record

in words

DZONE(0-?;.009) sensitivity of dials;

as DZONE is decreased,

the dials become more

sensitive

C. Rasic Display Scecifications

NPT(1-200;200)

number of points to be displayed per line

BIAS(?;0;I)

bias for displayed data

SCL(?;10.0)

scale factor, this scale factor should be used for interactive modification

SF(?;65536)

scale factor for AGT=10

putput

INT(1-10;I)

intensity of data display

MAXGM(1-10;10)	maximum number of seismograms
	that can be displayed
Iw(0-1,1,1)	flags choosing which
	seismograms will be displayed
	0-no display ; 1-display

D. Program Control Specifications

ITAPE(0-7;2)	input tape unit number
MTAPE (0-7;0)	rewind specified tabe unit
IDEV(1-2;1)	AGT-10 number
ICARD(0-1;0)	read card input
INITL(0-1;0)	reinitialize program
KILL(0-1;0)	return to master program

E. Display Specifications

LP(1-MP;1;I)	lead point of
	displayed data
x0(?;-0.4)	location of X=0,
	coordinate and data display
YO(?;-0.7)	Incation of Y=0,
	coordinate and data display
INCR(0-?;100)	lead point increment when
	using auto sweep
INC(0-3:0)	number of points skipped
	between each point displayed

F. Soot Display Specifications

IWIDE(1-10;10) width of spotlight in points

G. Trigger Control Specifications

MAXV(0-?;4096) maximum value of triager level

IV. Example of a Change of Control Parameters

Initially the user has the following display:

- 1. B seismograms, numbered 1 through 8
- 2. INT = 1, the lowest possible intensity on the display
- 3. INC = 0, one data point per plot point on the screen

The parameters are to be changed to yeild the following:

1. 2 seismoorams, numbers 5 and 7

Type

1. TN = 0.0,0,0,1,0,1,0,0,0

or

Tw(1) = 0

•

.

•

tw(u) = 0

IW(5) = 1

14(6) = 0

IW(7) = 1

Iw(8) = 0

IN(9) = 0

Iw(10) = 0

- 2. INT = 2, increase screen intensity
- 3. INC = 2, two data points are averaged to produce one plot point. (Function switch 12 could also have been used.)

```
PROJECT EARTHQUAKE
SUBTASK DS8 - DIGITALLY SIMULATED OSCILLISCOPE
   ISW(I) = LAND(JW,LLS(1,23-I))
   JOFF([]=LAND(JW, LXOR(-1, LLS(1, 23-1)))
   INTEGER VBUF(400), XVER, YVER, DMVER
   INTEGER EVID
   DIMENSION Y(200,10), MD(200,10), IBUF(1024), IMAGE(2002), IMG(200,10),
              LP(10), [P(10), MP(10), [REC(10), NREC(10), LPD(10),
              DIALS(10),CDS(10),VDS(10), ITIME(3,10), ITO(3,10), IT(10),
              11X(2), [TO] = (30), [GD] = (10), [MSPT (102), [MS (10, 10),
              BIAS(10), ICBR(24), IDGM(10), IDGRAM(10), ITXA(6), IW(10)
   EQUIVALENCE (IMAGE(2), IMG), (IMSPT(2), IMS)
   EGUIVALENCE (X9,X0),(Y8,Y0)
   EQUIVALENCE (MO, IBUF)
                 NCH, ICH, LREC, SR, NPT, IWIDE, BIAS, ITAPE, MTAPE,
   NAMELIST
             IDEV, LP, MP, XO, YO, ITO, SCL, ICAPD, INCR, DZBNE, SF, INITL
             JINC, MAXV, INT, MAXGM, IDGRAM, IN, NSKIP, IDELT
   NAMELIST KILL
   NAMELIST NEILE
   NAMELIST EVID
   DATA NULL/-1/, LREC/1024/, MAXV/4096/, DZ8NE/. 0080/, IDEV/1/,
         ITAPE/2/, IWIDE/10/, X0/+0+4/, Y0/++7/, SR/20+/, SCL/10+/, NPT/200/+
         ,INC/0/,INT/1/,INTSP/10/,0x/0.007/,INCR/100/,SF/65536/
         ,ICURS/O/,NSKIP/O/,IDELT/128/
   DATA KILL/O/
   DATA NEILE/O/
   VOVCIVE ATAC
   INTEGER TRL
   PARAMETER INPUT
10 INITE = 1
   TTADD * 0
   BUTPUT(102) 'PARAMETER INPUT'
   INPUT (101)
20 IF(ICARD +EQ+ 1) ICARD = 0 ; INPUT(5)
   IF(INITL +EQ+ 0) GB TB 100
30 CALL INIT
    IF(NFILE .LE. 0) 38 78 32
```

```
CALL FORSCN(ITAPE, NFILE)
      NFILE = 0
      CENTINUE
35
C
      READ INPUT TAPE
   31 INITL = 0
      D8 90 I = 1,NGM
      MREC = 0
      D9 35 N = 2,1
   35 MREC = MREC + NREC(N-1)
      IFILE = 10 + MREC
      D8 90 J = 1,NCH
      IF(J .NE. ICH) G8 T9 60
      READ IN RECORDS OF CHANNEL TO BE DISPLAYED AND STORE ON DRUM
      D8 50 K = 1, NREC(I)
      CALL BININ(ITAPE, IBUF, LREC, IND)
      IF(IND .EQ. 1) STOP
      CALL WRITE(IFILE, IBUF, LRSC)
   50 IFILE = IFILE + 1
      G9 T0 90
      READ THROUGH RECORDS OF THE CHANNELS TO BE SKIPPED
   60 D9 80 K = 1, NREC(1)
      CALL BININ(ITAPE, IBUF, 1, IND)
      IF (IND .EG. 1) GB TB 10
   BC CANTINUE
   90 CENTINUE
      SETUP DISPLAY BUFFER
C
      IFLD = 1
      COMPUTE THE RECORD IN WHICH THE CURRENT LEAD POINT IS LOCATED
      THE LEAD POINT IS THE IP-TH POINT OF THE RECORD
  100 DR 110 I = 1,NGM
      IPEC(I) = LP(I) / LREC
      IP(I) = LP(I) - IREC(I) +LREC
  110 IF(IP(I) .EG. 0) IP(I) = LREC
      DS 160 IJK = 1, MAXGM
      IF(IW(IJK) .E3. 0) G9 T8 160
      I = I + 1
      IF(ISCL .NE. 0) 38 T9 101
      IFILP(I) .EG. LPD(I)) GP TO 160
```

```
101 MFEC = 0
      D8 115 N = 2, IJK
  115 MREC * MREC + NREC(N = 1)
IFILE * 10 + IREC(I) + MREC
      CALL READD(IFILE, IBUF, LREC)
      LPD(I) = LP(I)
      D8 130 J = 1, NPT
      IF THE CURRENT POINT EXCEEDS THE BOUNDS OF THE GRAM, STUFF ZEROS
      IN THE REMAINDER OF THE DISPLAY BUFFER
      IF(LP(I) + (J-1)*(INC+1) •GT• MP(I)) G8 T9 155
      IR = IP(I) + (J-1)*(INC+1)
      MUST GO TO THE NEXT RECORD
      IF(IR.GT.LREC) IP(I) = IR-LREC; G0 T0 140
      Y(J,I) = IBUF(IR)*SCL/SF
  130 CENTINUE
      G9 T8 160
  140 IFILE = IFILE + 1
      TEST TO SEE IF ALL DATA HAS BEEN EXHAUSTED, IF SO, STUFF ZEROS INTO
      THE REMAIN "ER OF ITS OUTPUT ARRAY
      IF(IFILE .GE. MREC + 10+ NREC(1)) 38 T8 155
      CALL READD(IFILE, IBUF, LREC)
      DA 150 K = JANAT
      IP=IP(I)+(K-J)*(INC+1)
      MUST GO TO THE NEXT RECORD
      IF(IR.GT.LREC)J=K; IP(I)=IR-LREC; G8 T9 140
  150 Y(X,I) = IBUF(IR)*SCL/SF
      G8 T9 160
      STUFF ZERGS INTO THE REMAINDER OF THE GRAPHICS ARRAY
  155 DR 156 JJ . J.NPT
  156 \ Y(JJ \cdot I) = 0.0
  160 CENTINUE
      ISCL = 0
C
      DISPLY BUFFER
      IF(IFLD .EG. 0) 39 T9 165
      CALL TIMETX
      CALL REMOVE
      CALL DSPLY
  165 IF(KSFLG .EQ. 0) 39 T9 170
```

```
IF (KSPT .NE. 0) CALL SPET
      KSPT = 0
  170 CONTINUE
SENSE FUNCTION SWITCH OPTION
      FUNCTION SWITCH ASSIGNMENT
         NAMELIST INPUT
          DIAL OVERLAY OPTION
         TIME SWEEP - COARSE - ALL DIALS
TIME SWEEP - VERNIER - ALL DIALS
AMPLITUDE SCALING - DIAL 4
      8
          TRIGER -
                     DIAL 3
      9
          AUTO SWEEP
          DIRECTION OF SWEEP
      10
           SINGLE SWEEP
      11
      12
          TIME BASE
                          DIAL 3
          SPOTLIGHT
      13
                      - DIAL 1
      14 REMOVE SPOTLIGHT
      15
          TRIGGER FROM CURRENT LP
            ADVANCE TAPE OR REVERSE TAPE IF EN SAITCH 10 IS ON
       16
  200 CALL FNS(IDEV, ISW, IER)
       IF(IER .NE. 0) BUTPUT(102) IER, 'ISM'
       JW = LXBR(JW, ISW)
      LB # NSM + 3
      D9 220 I = 3,16
      IF(JSW(1) .EQ. 0) G8 T8 220
      ENCODE(4,210,ITX) I
  210 FORMAT(I2)
       CALL TEXTS(IDEV, ITX, 1, L8, 1, 1, 3, IER)
       IF(IER .NE. 0) OUTPUT(102) IER, 'SW'
      L5 = L8 + 1
  220 CENTINUE
      D9 230 I = LB, NGM + 16
       CALL TEXTS(IDEV, NULL, 1, 1, 1, 1, 3, IER)
       IF(IER .NE. 0) SUTPUT(102) IER, 'NUL'
  230 CENTINUE
      CALL VCD(IDEV, DIALS, IER)
      IF(IER .NE. 0) GUTPUT(102) IER, 'VCD'
C
       IFLO = 1
       TEST FOR NAMELIST INPUT
  300 [F(JSw(3) .EQ. 0) G8 T8 310
       13 = NGM + 17
       CALL SINPUT(IDEV, ITDIR, 13)
       CALL PAR
       JW = J9FF(3)
```

```
IF (MTAPE .NE. 0) CALL RWNC (MTAPE); MTAPE = 0
    IF(ICARD .EQ.1) GB T9 20
    IF(INITL .EQ. 1) GB TS 30
    IF THE NUMBER OF GRAMS TO BE DISPLAYED HAS BEEN CHANGED, REINITIAL!
    IF(LSTNGM .NE. NGM) CALL INIT
    KSPT=1
    G9 T0 100
    EXERCISE VARIOUS FUNCTION SWITCH OPTIONS
310 IF(USW(5) +NE+ 0) CALL CHARSE; GR TH 100
    IF(JSW(6) .NE. C) CALL VERNIER; GB TB 100
    IF(USW(7) .NE. C) CALL SCALE; G8 T9 100
    IF(USW(8) .NE. 0) CALL TRIGER; UW = USFF(8); 39 TH 100
    IF(JSW(9) •NE• 0) CALL AUTO; GO TO 100
    IF(JSW(11).NE. 0) CALL AUTO; JW=J9FF(11); G9 T9 100
    IF(USw(12).NE. C) CALL SPAN; 38 T9 100
    IF(JSV(13) .NE. 0) KSPT = 0; CALL SP9T; G9 T9 100
    IF(JSA(14) •NE• 0)CALL SP9T; JA=J8FF(14); 39 T9 100
    IF(USW(15) .NE. 0) CALL VERSA; UW=U8FF(15)
    IF(USW(16) .NE. 0) CALL TAPEIP; Uw=U8FF(16); G9 T9 31
    Gª T8 200
    SUBROUTINE SCALE
    IF(ABS(DIALS(4) - SCLD) .LT. DZBNE) IFLD = 0; RETURN
    SCLD=DIALS(4)
    SCL=(1.0+SCLD)*10.0
    D8 10 I=1.NGM
 10 LPD(I) = +1
    KSPT = 1
    RETURN
    SUBROUTINE TRIGER
    ISGN = 0
    OPTION FOR NEGATIVE TRISGER LEVEL
    IF(JSN(10) \cdot NE \cdot 0) ISGN = -1
    MAXV IS THE UPPER LIMIT OF THE TRIGGER LEVEL
    TRL *(DIALS(3) +1) *MAXV/2
    TRL = ISISN(TRL, ISGN)
    1 = C
```

```
D8 30 IJK = 1, MAXSM
      IF(IW(IUK) +EQ+ 0) G9 T9 30
      1 = 1 + 1
      MREC=0
      IRT = 1
      IST = 1
      OPTION TO TRIGGER FROM CURRENT LEAD POINT
      IF(USW(15) .NE. C) IST=IREC(I) + 1; IRT=LP(I)-IREC(I)*LREC
      NO 10 J = 2, IJK
   10 MREC = MREC + NREC(J-1)
      D9 25 K . IST, NEEC(1)
      IFILE=10+MREC + (K-1)
      CALL READD (IFILE, IBUF, LREC)
      DA 20 L = IRT, LREC
      KK=LREC*(K-1)+L
      IF((IBUF(L) +LT+ 0) +AND+ (TRL +LT+ 0)) 39 T9 15
      IF(IBUF(L) .LT. 0) 39 T9 20
      IF(TRL .LT. 0) GB TB 20
      PESITIVE TRIGGER LEVEL
      IF((IBUF(L) - TRL) .GE. 0) LP([] = KK; G9 T9 30
      G5 TB 20
      NEGATIVE TRIGGER LEVEL
   15 IF((IBUF(L) - TRL) -LE- 0) LP(I) = KK; GB TB 30
50
      CONTINUE
      12T = 1
   25 CONTINUE
      IF NO TRIGGER LEVEL IS FOUND, SET THE LEAD POINT EQUAL TO THE LAST
      PRINT OF THE GRAM
      LP(I) = MP(I)
   30 CONTINUE
      ENCADE(8,100,ITX)TRL
      FARMAT(18)
100
      CALL TEXTS(IDEV, ITX, 2, 1, 92, 1, 3, IER)
      IF(IER.NE.O)BUTPUT(102)IER, 'TRL'
      KSPT = 1
  200 RETURN
      SUBROUTINE COARSE
      IF(JSW(6) .NE. C) CALL VERNIER; RETURN
      IF(JSW(7) .NE. C) CALL SCALE; RETURN
```

```
IFL7 = C
     N1=NGM
     12.0
     IF(NGM+GT+6)N1+6;N2=NGM-6
      IF (USW(4) . NE . 0109 T9 20
     CAMPUTATION FOR LINES 1 TO 6
     D9 13 1-1,N1
     IF (AUS (DIALS (I) - COS (I)) +LT+ DZPNE) G9 T9 10
      CDS(I) #DIALS(I)
      THE RANGE OF THE LEAD POINT IS LIMITED BY THE TOTAL NUMBER OF
      PAINTS IN THE GRAM
     LP(I) = (1.0 + PIALS(I)) + MP(I)/2
      INSURE DISPLAY AND SPUTLIGHT UPDATE
      IFLD = 1
      KSPT = 1
      CONTINUE
10
      RETURN
      COMPUTATION FOR LINES 7 TO 10
      DA 30 1=1/N2
20
      IF(ABS(DIALS(I) + CDS(I+6)) .LT. DZBNE) 33 TO 30
      COS(I+6)=DIALS(I)
      LP(1+5) * (1.0 + DIALS(1)) * MP(1+6)/2
      INSURE DISPLAY AND SPOTLIGHT UPDATE
      KSPT . 1
      IFL? * 1
      CONTINUE
30
      RETURN
      SUBRBUTINE VERNIER
      IFLD . C
      NIENGM
      V2≖0
      156N = 1
      SETTEN TO 38 NACKWARDS
      IF(USw(10) .NE. 0) ISGN = -1
      [F(NGM+GT+6)N1=6;N2=NGM+6
```

```
IF (JSW(4) . VE . C) G8 T9 2C
      COMPUTATION FOR LINES 1 TO 6
      D9 10 I=1.N1
      IF(ABS(DIALS(I) - VOS(I)) +LT+ DZ9NE) G9 T9 10
      VDS(I) = DIALS(I)
     LP(I) = LP(I) + (1.0 + DIALS(I)) + NPT + ISSN/2
      IF(LP(I) *LT* 1) LP(I) = 1
      INSURE DISPLAY AND SPETLIGHT UPDATE
      KSPT = 1
      IFLD = 1
      CANTINUE
10
      RETURN
      CAMPUTATION FOR LINES 7 TO 10
20
      D9 30 I=1,N2
      IF(ABS(DIALS(I) = VDS(I+6)) .LT. DZBNE) GB TB 30
      VOS(I+6)=DIALS(I)
      LP(I+6) = LP(I+6) + (I+0) + DIALS(I))*NPT*ISGN/2
      IF(LP(I+6) \cdot LT \cdot 1) LP(I+6) = 1
      INSURE DISPLAY AND SPETLIGHT UPDATE
      KSPT = 1
      IFLD = 1
      CANTINUE
30
      RETURN
      SUBROUTINE AUTO
      ISGN=0
      OPTION TO GO BACKWARDS
      IF(JS#(10) . NE . 0) ISGN=-1
      De 10 I=1,NGM
      INCREMENT EACH LEAD POINT BY +/- INCR, REMAINING WITHIN THE
      LIMITS OF THE TOTAL NUMBER OF POINTS IN THE GRAM
      LP(I)=LP(I)+ISIGN(INCR, ISSN)
      IF(LP(I) *LT * 1) LP(I) = 1
      IF(LP(I) *GT* *MP(I)) LP(I) * *MP(I)
   10 CONTINUE
      KSPT = 1
```

RETURN

SUBROUTINE SPAN IF(ABS(DIALS(3) - SPN) .LT. DZONE) IFLD . D;RETURN SPN = DIALS(3) IF(SPN +LE+ 0) G8 T9 20 EXPAND THE GRAM 10 NPT = (1-SPN) * 200IF(NPT \bullet LT \bullet 10) NPT = 10 DX = 1.4/NPT INC = 0 Gº T0 30 CONTRACT THE GRAM 2C INC = (ABS(SPN)) *MPMX DX = 0.007 NPT = 200 NUMBER OF SECONDS BEING DISPLAYED ON THE GRAPH 30 S = (NPT/SR)*(INC+1)35 ENC9DE(8,100, ITX) S 100 FBRMAT(F8+2) CALL TEXTS(IDEV, ITX, 2, 2, 92, 1, 3, IER) IF(IER .NE. 0) BUTPUT(102) IER, SPAN! DA 200 I * 1.NGM CHANGE LPD TO INSURE THAT THE DISPLAY WILL BE UPDATED 200 LPD(I) = 0 KSPT = 1 RETURN SUBROUTINE TIMETX D8 20 NM = 1,NGM I = NGM - (NM - 1)CAMPUTE THE TIME OF THE FIRST PRINT ON EACH SEISMOGRAM K = IT(I) + LPD(I)/SRIF THE SPETLIGHT IS EN, DISPLAY THE TIME AT ITS MIDPEINT

```
IF(ICURS •NE• 0) K = K + (INC+1)*(SPTA + (INIDE/2))/SR
      ITIME(1,I) = K /3600
      ITIME(2,1) = (K-ITIME(1,1)*3600)/60
      ITIME(3,1) = K = ITIME(1,1)*3600 = ITIME(2,1)*60
      AMPLITUDE IS GIVEN FOR THE FIRST POINT ON EACH LINE
      IAMP = Y(1, I) + (SF/SCL)
      ENCODE(24,100,17XA) IDGM(1),171ME(1,1),171ME(2,1), 171ME(3,1),1AMP
  100 FERMAT(A4,1 1,12,1 1,12,1 1,12,1 1,15,1 1)
      CALL TEXTO(IDEV, ITXA, 6, NM, 1, 1, 3, IERROR)
      IF(IERROR .NE. O) SUTPUT(102) IERROR, 'TXS'
   20 CONTINUE
      RETURN
C
      A SUBROUTINE TO DISPLAY GRAPHICAL DATA
      CALLS IHEAD, IPACK, GRAPHS
      SUBROUTINE DSPLY
      IMAGE(1) = IHEAD(0, INT)
      L = NPT+NGM + 2
      MKZ9 * LSTNPT = NPT
      D9 15 I = 1.NGM
      K = (1 - 1) + NPT + 1
      CAMPUTE THE VERTICLE SPACING OF EACH LINE
      YV = Y\theta + (I-1)*DY
      D9 10 J = 1.NPT
      XI^{M} = XS + DX*(J - 1)
      YIM = YV + Y(J_1I) - BIAS(I)
      IF(J.NE. 1) G9 T8 9
      MAKE THE FIRST POINT ON EACH LINE A DRAW
      IMAGE(K+J) = IPACK(XIM,YIM,O)
      Ge T8 10
    9 IMAGE(K+J) = IPACK(XIM,YIM,MD(J,I))
   10 CENTINUE
   15 CENTINUE
      IMAGE(L) = 0
      PUT ZEROS IN THE UNUSED PORTION OF THE ARRAY
      De 20 I = 1, MKZ9 + NGM
   20 IMAGE(L+1) = 0
      CALL GRAPHO (ICEV, IMAGE, L, 1, IER)
      IF(IER .NE. 0) BUTPUT(102) IER, 'GPB'
```

```
LSTNPT = NPT
  RETURN
  SUBROUTINE SPOT
  ICURS . 1
  IF(USW(14) .NE. 0) ICURS = 0; G9 T9 15
  WHEN THE KSPT FLAG IS ON, THE SPOT WILL BE UPDATED: HOWEVER,
  THE AGT DIALS WILL NOT BE READ
  IF(KSPT .NE. 0) G9 T9 9
  READ THE AGT DIALS
  IF(ABS(DIALS(1) - SPT) .LT. DZBNE) IFLD = 0; RETURN
  SFT = DIALS(1)
  SPTA = (DIALS(1) + 1)*NPT
  SPTB * SPTA + IWIDE
  IF(SPTB .LE. NPT) G8 T8 5
  SAV - SPTB - NPT
  SPTA = SPTA - SEV
5 CONTINUE
  WITH +1<DIALS<+1 GET NUMBER OF LEAD SPOT POINT
9 IMSPT(1) = IHEAD(0, INTSP)
  L = IWIDE+ NGM + 2
   De 10 I = 1,NGM
   K = (I-1) * NPT + 1 + SPTA
   DP 10 J = 1, INICE
   IMS(J,I) = IMAGE(K+J)
  FOR EACH SEISMOGRAM, MAKE THE FIRST POINT OF THE SPOT A MOVE.
   ALL SUBSEQUENT POINTS WILL BE DRAWS
   IF(J .EQ. 1) IMS(J,I) = LAND(777777768,IMS(J,I))
10 CONTINUE
   IMSPT(L) = 0
   KSFLG = 1
   G8 T8 17
  ZERO THE SPOTLIGHT ARRAY, THUS MAKING EACH POINT A MOVE
15 DP 16 I = 1,NGM
   D9 16 J = 1, INIDE
16 IMS(J,I) =0
   K = NGM*IWIDE + 1
   IMSPT(K) = 0
   IMSPT(+1) = 0
   KSFLG = 0
```

```
17 CONTINUE
      KSPT = 0
      CALL GRAPHO (IDEV, IMSPT, L, 3, IERROR)
      IF(IERROR .NE. 0) OUTPUT(102) IERROR, 'GS9'
      CALL TIMETX
      IFLD = 0
      RETURN
Ċ
      SUBROUTINE COORD
      ICOR(1) = IHEAD(1.INT)
C
      PLOT Y AXIS
С
      ICBR(2) = IPACK(X9,Y9,0)
      YCOR = Y0 + 1.4
      !COR(3) = IPACK(X9,YCOR,1)
C
      PLOT X AXES
      De 10 I = 1,NGM
      XCSR = X8 + 1+4
      YC3Q = Y9 + (I-1)*DY
      K = (1-1)+2 + 4
      ICOR(K) = IPACK(X0,YCOR,O)
   10 ICBR(K+1) = IPACK(XCBR, YCBR, 1)
      ICSR(K+2) = 0
      CALL GRAPHO(IDEV, ICOR, K+2, 2, IERROR)
      IF(IERROR .NE. 0) SUTPUT(102) IERROR, 'COR'
      RETURN
000000
      SUBROUTINE INIT
      CALL PAR
      De 10 I = 1,MAXGM
      IT(I) = ITO(3,I) + 60*(ITO(2,I)*60*ITC(1,I)) + IDELT*(I*1)
      LP(I) = 1
      LPD(1) = 0
      COS(I) = 0
      VDS(I) = 0
      BIAS(1) = 0.0
      D9 10 J = 1,NPT
   10 Y(J \cdot I) = C \cdot 0
      CALL DTINIT(IDEV, ITDIR, 30, IER)
      IF(IER .NE. 0) SUTPUT(102) IER, 'DTIN'
```

```
CALL TIMETX
      CALL DGINIT(IDEV, IGDIR, 10, IER)
      IF (IER .NE. 0) BUTPUT (102) IER, 'DGIN'
      CALL DSPLY
      TRL = 0
      ENCODE (8,20,1TX) TRL
   20 FERMAT(18)
      CALL TEXTO(IDEV, ITX, 2, 1, 92, 1, 3, IER)
      IF(IER .NE. 0) BUTPUT(102) IER, 'ITRL'
      S = NPT*(INC+1)/SR
      ENCODE (3,30, ITX) S
   30 F9RMAT(F8+2)
      CALL TEXTS(IDEV.ITX,2,2,92,1,3,IER)
      IF(IER .NE. 0) GUTPUT(102) IER, 'ISPAN'
      LSTYPT = LSTWID = 0
      LSTNGM = NGM
      CALL COORD
      MPMX = MP(1)
      D8 40 I = 2,NGM
   40 IF(MP(I) \bulletLT\bullet MPMX) MPMX = MP(I)
      MPMX = (MPMX/NPT) = 1
      RETURN
C
C
C
      SUBROUTINE PAR
      NGM = 0
      COUNT THE NUMBER OF GRAMS AND THE NUMBER OF RECORDS PER GRAM
      De 10 I = 1, MAXGM
    5 NGM = NGM + IW(I)
      NREC(I) = MP(I)/LREC
   10 IF(MP(I) +GT+ NREC(I)+LREC) NREC(I) + NREC(I) + 1
      DB 20 IUK = 1, MAXGM
      IF(IW(IJK) .EG. 0) GB TB 20
      I = I + 1
   20 IDGM(I) = IDGRAM(IJK)
      DY = 1.4/NPT
      DY = 1.4/NGM
      IF(SCL .NE. SCLSAV) SCLSAV = SCL; ISCL = 1
      IF(SF .NE. SFSAV) SFSAV = SF; ISCL = 1
      RETURN
000
      SUBROUTINE REMOVE
```

```
REMOVE HIDDEN LINES FROM GRAPHICS DISPLAY
      D9 10 I = 1,NGM
      De 10 J = 1,NPT
   10 MD(JJI) = 1
      D8 100 I = 1,NGM-1
      De 100 J = 1.NPT
      DA 100 N = I+1, NGM
      IF(MD(J.N) .EG. 0) G9 T8 100
      IF(
            (Y(J_i))=Bias(I))\cdot gT\cdot (Y(J_i)=Bias(N))+DY*(N-I))
     1 0
  100 CONTINUE
      RETURN
C
С
C
      SUBROUTINE TAPEIP
      IXFDEL = NGM*IDELT
      KSPT=1
      IFLD= 1
      ISGN = 1
      IF(JSW(10).EG.0) 38 T8 20
      ISGN = -1
      D9 10 K = 1,2
      DB 10 I = 1.NGM
      De 10 J = 1, NREC(I)
   10 CALL BAKREC(ITAPE,1)
   20 D# 30 [ = 1,NGM
      LPD(1) = 0
   30 IT(1) = IT(1) + ISIGN(IXFDEL, ISGN)
      RETURN
C
      SUBROUTINE VERSA
      IF(JSW(10) •NE• 0) CALL WESF(4,0); RETURN
      De 10 I = 1,400
10
      VSUF(I) = 0
      VBUF(1) = NPT
      VBUF(2) = NGM
      VBUF(3) = SF
      VBUF(4) = ITIME(1,1)
      VSUF(5) = ITIME(2.1)
      VBUF(6) = ITIME(3,1)
      VPUF(8) = EVID
      D8 15 [ = 1.NGM
15
      VBUF(9+I) = Y(1)NGM+(I-1)
      CALL BINGUT (1, VBUF, 400, IND)
      D9 30 J = 1,NGM
      De 20 I = 1.NPT
      CALL UNPACK(IMAGE(1+(u-1)+NPT+1), XVER, YVER, OMVER)
      V9UF([*2-1) = XVER
```

YVER = LISR(LAND(YVER,0777777768),DMVER)
VBUF(I*2) = YVER
CALL BINSUT(1,VBUF,400,IND)
RETURN 30 30 END

```
PAGE
       EGU
                5
8
       EGU
       FORREC BAKREC
                            SPACE THE TAPE EITHER FORWARD OR
       BACKWARD I RECORDS
       CALLS
                  9SETUPN, R/IOPS
       CALLED BY
                     MAIN PREGRAM
       CALL BAKREC(N, I) N = UNIT, I = N0.0F RECORDS
SBAKREC PZE
                 0
       LDA
                BAKREC
       STA
                FORREC
       BRU
                FORREC+1
SFARREC PZE
                0
       BRM
                9SETUPN
       PZE
                2
FUNIT
       PZE
                0
                               TIVUS
                               :Ne . OF RECORDS
FNREC
       PZE
                0
       LDA
                *FUNIT
       STA
                FUNT
       BRM
                ASGN
       FZE
                1
FUNT
       PZE
                0
       LDA
                ARFDT
       ADD
                *03000000
       STA
                FOCAL
       LDA
                *FNREC
       SKU
                = 0
       SRU
                RCEND
                BAKREC
       LOB
       SKB
                =077777
                               ; GB BACKWARDS
       BRU
                $+2
       COPY
                (-A . A)
                TFDT+4
       STA
       BRM
                RNIBPS
       PZE
       PZE
FECAL
                0
                 TOT
       SKN
                . . 5
       BRU
                ٦. ٦
       o F
                B ..REC
RCEND
       BRR
                FERREC
       PAGE
       BAKSON FORSON SCANS FORWARD OR BACKWARD ON A TAPE FOR A
       KEYWORD OR AN END FILE MARK
```

```
SSETUPN, R/ISPS, BCDCVT, ASGN
       CALLS
                     MAIN PROGRAM
       CALLED BY
                0
SBAKSON PZE
                BAKSON
       LDA
       STA
                FORSCN
       BRU
                F9RSCN+1
SFORSON PZE
       BRM
                PSETUPN
       PZE
       PZE
SUNIT
                0
       PZE
SESF
                0
       STZ
                COUNT
       LDA
                *SUNIT
       STA
                SUNT
       E 24
                               SEARCH SYMBOL TABLE
                ASGN
       PZE
       PZE
                C
SUNT
       LDA
                =0600
                               :600 - 4 CHARACTER/WERD
                               STORE MODE IN FOT
       STA
                MODE
       LDA
                =017170000
                               ; PUT EOF KEYWORD IN FOT
PLC1
       STA
                TFOT+4
                *SESF
       LDA
                               GET NO. OF ESF'S
       SKU
                =C
       380
                FEND
       565
                = 1
       STA
                COUNT
       L03
                BAKSCN
PLCS
       LDA
                ARFOT
       CCA
                -05000000
       SK3
                =077777
                                SCAN BACKWARDS
       ERJ
                $+2
                                : NA
                =00100000
       COA
       STA
                SCNCAL
       =24
                RNIBPS
0919
       PZE
SCNCAL FZE
                0
        SKN
                TFDT
       5.RU
                *+5
       BRU
                $ -. 2
                                :NB
       LDA
                TFDT
                                BEGIN OR END TAPE
       SKU
                =06000000
                FEND
       5RU
       LDA
                *SESF
                = 0
       SKU
       BRU
                CNTR
```

```
LDA
                TFDT
       SKE
                =010000000
      BRU
               0019
       SKR
CNTR
                COUNT
       PRU
                6160
       LDA
                BAKSCN
                               :WAS THERE BACKSCANNING
       SKU
                = 0
        BRU
                FEND
       LDA
                SUNIT
       STA
                PLC3
       LDA
       STA
                PLC4
       BRM
                FORREC
                               ;GD FORWARD 1 RECORD TO GET PAST THE ESF
       PZE
       PZE
PLC3
                0
PLC4
       DZE
                ٥
FEND
       STZ
                BAKSCN
       BRR
                FORSCN
COUNT
       PZE
                0
       PAGE
       TVDCDE
                   CONVERTS A WORD TO BCD
       CALLS
                  NONE
       CALLED BY
                      ASGN, FERSON, BAKSON
SBCDCVT PZE
       BRY
                9SETUPN
       PZE
WERD
       PZE
                0
       STX
                STORE,1
                =0200000-4,1
       LDX
       LDA
                ≈060606060
       STA
                SATMAN
       STA
                NAMTAB+1
CLeep
       LD3
                WORD
       ALSB
                1
       CSPY
                (CAA)
                =10
       Capy
                (A,B),(B,A)
       573
                CRBK
       LDB
                MASK
       STS
                NAMTAB
                BATMAN
       LOA
       CRSA
                6
       STA
                BATMAN
       98X
                DLSSP.1
                ELBSP
       日報は
```

```
DLOOP
       LDA
                WORD
       SKE
                = 0
       BRU
                CL89P
       LOX
ELSOP
                STERE,1
       DER
                BCDCVT
STORE
       DZE
                0
       PZE
                C77
MASK
       PASE
                 FINDS SYMBOL TABLE ADDRESS OF TAPE UNIT
       ASGN
                  RIRSTS
       CALLS
      CALLED BY
                  ALL TAPE HANDLING SUBROUTINES
       AILL CAUSE AN ABORT IF AN ADDRESS CORRESPONDING TO THE UNIT
       IS NOT FOUND
       PZE
SASGN
       BRM
                9SETUPN
       DZE
                1
TUNT
       PZE
                0
       LDA
                TUNT
       STA
                ASGN1
       BRM
                BCDCVT
       PZE
       DZE
ASGN1
ASGN2
       BRM
                RIRSTS
       PZE
       PZE
                NAMTAB
        SKŲ
                 = 0
       BRU
                TERR
       STA
                TFDT+5
       ERR
                ASGN
TERR
       LDA
                NAMTAB
                MSG+1
       STA
       BRM
                RNABRT
       FZE
       PZE
                MSG
NAMTAB TEXT
                8,
       PZE
MSG
       DZE
       TEXT
                         NOT FOUND
                16.
ARFDT
       PZE
                TEDT
```

```
TEDT
       PZE
       PZE
                0
       DZE
                0
       PZE
                0
MODE
DIRECT PZE
                C
FCB
       PZE
                0
       PZE
       PAGE
                                  READ OR WRITE A TAPE IN EITHER BCD OR
       PCDIN/eut
                    TLEVIIVIE
       BINARY
                 ASSN, 9SETUPN, R/18PS
       CALLS
       CALLED BY
                    MAIN PROGRAM
SEINBUT PZE
                0
                BINBUT
       LDA
                BCDBUT
       STA
                BCDIN
       STA
                =C1
       LDA
       STA
                BINFLG
       935
                ECDIN+1
SBININ PZE
                С
       LOA
                BININ
       STA
                BCDIN
       LDA
                =01
                BINFLG
       STA
                BCDIN+1
       PRU
SECCEUT PZE
       LDÃ
                SCOOUT
        STA
                BCDIN
                BCDIN+1
       = 30
#BCDIN PZE
                0
        BRM
                9SETUPN
        PZE
                               :TAPE UNIT
        PZE
BUNIT
                               BUFFER ADDRESS
        PZE
BBUF
SREC
        PZE
                               :RECORD LENGTH
                Э
BIND
        PZE
                0
                *BIND
        STZ
        LDA
                *BUNIT
        STA
                BUNT
        BRM
                ASGN
        PZE
```

```
BUNT
       DZE
       LDA
                *0600
                BINFLG
       LDS
       SX3
                =077777
                               : IS FLAG SET - BINARY
       BRU
                $+2
                =01000
       CCA
                                ; YES
                MEDE
       STA
       STZ
                BINFLG
       LDA
                BBUF
       LD9
                *BREC
       STO
                TFDT+1
       LUA
                ARFOT
                                :FOT ADDRESS
       LDB
                TUEDDE
       SK3
                =077777
                                ;SUTPUT
                               : 19
       = 21
                3+2
       ADD
                *04000000
                                ; YES
       STA
                BCAL
       STZ
                BCDBUT
       524
                RNISPS
       PZE
       PZE
BCAL
                0
                TEDT
       SKV
       330
                3+2
       530
                $ -, 2
       LD3
                TEDT
       5<3
                *016000000
       294
                BFIN
       LDA
                =01
       STA
                *BIND
BEIN
       SIZ
                BINFLG
       BRR
                MICDE
BINFLS PZE
               0
       FAGE
                 WRITES AN END OF FILE WITH AN OPTION TO REWIND THE
        TAPE AT THE USER'S REQUEST
       CALLS 9SETUPN, R/19PS, RWND CALLED BY MAIN PROGRAM
       CALL RESF(NaIR)
                            NEUNITA IREO DR 1 - NO REMINO DR REWIND
SAFAE
       PZE
       ⇒ दुष
                BSETUPN
```

:

```
BRM
                ASGN
                               SEARCH SYMBOL TABLE
       PZE
WUNT
       PZE
                0
       LDA
                ARFDT
                               FOT ADDRESS
       ADD
                               JOP CODE FOR ENDFILE
                =03100000
       LOB
                *WFLAG
                               REWIND FLAG
       SK3
                =077777
       PRU
                $+5
       ADD
                =00200000
       STA
                               ;STORE OF CODE + FOT ADDRESS
                WECAL
       324
                RNISPS
       PZE
WECAL
       PZE
       SKN
                TEDT
       89U
                $+2
       PRU
                $-2
       322
                WESF
       PAGE
$RWND
       PZE
                С
       BRM
                9SETUPN
       PZE
RUNIT
       FZE
                0
       LDA
                *RUNIT
       STA
                RUNT
       ERM
                ASGN
                               39 SEARCH SYMBL TABLE
       FZE
                Ö
RUNT
       PZE
                ARFOT
       LDA
                               FOT ADDRESS
       CCA
                ±03200000
                              COTWER FOR ECON
       STA
                RACAL
                              ISTORE IN CALLING SEQUENCE
       224
                R119PS
       PZE
       PZE
RACAL
       SKN
                TEDT
       320
                5+2
       PRU
                $ -. 2
       328
                24VD
```

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Digital Transform Display

Essentially the same as NSO excent for changes in the input parameters and data, the Digital Transform Display or DXD allows the simultaneous display of as many as ten transforms. Transforms are read into the computer and stored on the drum. It is then possible to sweep in any direction through the transforms either in frequency or in time.

Its options are similar to those of DSO and include: namelist, frequency sween, timesween, amplitude scaling, trigger, variable frequency resolution, and spotlight.

i. Namelist

when this ortion is chosen, the user is allowed to modify the value of any namelist parameter. The line-edit canibility provided by the AGT-10 makes this task easy for even the worst typis:.

ii. Frequency sween

with a cossible maximum of 200 points per line on the screen at any one time, it is necessary to sween in frequency to be able to examine the entire spectrum of a long transform at high resolution. This period can be used in either of two modes: automatic frequency sweep in which all transforms are sweet in frequency simulationeously, and individual sweep mode for which the sweep of each transform is regulated by one six control dials.

iii. Time sweep

Since each transform covers a certain window in time, to sweep in time will mean to display either younger or older transforms. In this application of time sweep, it is possible to sweep automatically or with the use of variable control dials.

iv. Amplitude scaling

Interactive amplitude scaling is provided with this option, which provides an alternative to amplitude scaling via namelist input. A control dial is used to govern the scaling.

v. Trigger

This option allows the operator to trigger on the amplitudes of the transforms currently being displayed. A control disl is used to set the trigger level.

vi. Variable frequency resolution

As the user of OSO is allowed to expand or contract the timerase of the display, so the user of DXD is allowed to modify the frequency base of the display with a control dial. As few as 10 frequency points can be displayed simultaneously or the entire transform can be averaged in such a way that it fits on the screen. In the latter case, the resolution is usually somewhat diminished.

vii. Spotlight

A spotlight, whose position is regulated by a control dial, is available to help accentuate interesting features of the spectra.

I. DXD - Operating Summary

DXD was designed to illustrate the transforms from a given number of seismograms on an two-dimensional display of amplitude versus frequency. Time control is available through two options: time sweep for individual seismograms and auptosweep in time for which all of the seismograms are updated simultaneously.

Used either stand-alone or as an overlaw segment, DXD requires that the "GATEO" unachies backage be activated in the AGT-10. To transfer control to DXD either a save-tape containing the program must be loaded or the appropriate suproutine call must be made. A data tape containing transforms from up to ten seismograms is mounted on the appropriate unit. The user has the option of specifying namelist variables by typing them in on the XDS 9300 teletype console or by loading a prepared card deck and typing:

ICARO = 1

c/r *

c/r

II. Function Switch Pefinitions

Once the program has been initialized, the AGT-10 console, function switches, and control dials are used for program control. Below are listed the function switch definitions. When control dials are to be used in conjunction with a particular function switch option, they have been indicated in paretheses.

3 - namelist input

This allows the operator to modify namelist parameters from the AGI-10 teletype console.

4 - dial overlay option

Since there are only six control dials and since a maximum of ten transforms can be displayed simultaneous*

ly, this function switch allows the operator to use one control dial for more than one transform when one of the sweep options has been selected.

5 - timesween (all dials

This ortion allows the user to view either previous or subsequent transforms using the control dials to select the transform of interest.

b = frequency sweep (all dials)

Each transform can be swept individually in frequency and is governed by the control dials.

7 - scaling (dial D)

As an alternative to namelist, amplitudes may be scaled manually.

8 - trigger (dial C)

The control dial is used to set the trigger level and function switch 10 is used to change the sign of the trigger level. Function switch 15 should be on for triggering from current position; off for triggering from beginning of the transform.

9 - auto sweep

This option causes continuous frequency sweeping of all seismograms. Function switch 10 will reverse the direction of the sweep. By selecting function switch 15, the auto sweep will be applied to the time sweep option rather than the frequency sweep option.

10 - sign option

Used in conjunction with function switches 5, 6, 8, $^{\rm q}$, and 11, the sign of the time sweep direction, the frequency sweep direction, or of the trigger amplitude becomes negative.

11 - auto sween once

A single time sweep or frequency sweep of all of the data is executed. The sweep direction is reversed by selecting function switch 10 and function switch 15 must be on to obtain a time sweep.

12 - span (dial C)

This option expands or contracts the frequency base of the display.

13 - spotlight (dial A)

The control dial is used to position the spotlight at the desired location. When the function switch is turned off, the highlight will remain on and stationary.

14 - remove spotlight

This option turns off the spotlight.

15 - miscellaneous

When this function switch is on the user is allowed to either trioger from the lead point of the data currently being displayed or to use the auto option to sweep in time.

III. Control Parameters

the namelist variables are listed below. For each, the range and default value have been give in parentheses. 'I' has been used to indicate array variables all of which can have up to ten entries. Real variables are indicated by the use of decimal points.

A. Uriginal Data Specifications:

MCH(1-3:5)	number of channels
MP(?;0;[)	maximum number of
	points on the seismogram
SP(?;20.0)	oridinal sampling rate of
	data in samples/second

ITU(?,?,?;0,0,0;I) start time of the data in hours, minutes, and seconds

IDGRAM(?;0;I) seismogram identification number

B. Mechanical Data Specifications:

ICH(?;1) channel to be displayed

LREC(1-1024;1024) length of input record

in words

DZUNE(0-?;.008) sensitivity of dials;

as DZONE is decreased,

the dials become more

sensitive

C. Basic Disclay Specifications

NPT(1-200;200)	number of points to be
	displayed per line
BIAS(?;0;I)	bias for displayed data
SCL(?;10.0)	scale factor, this scale
	factor should be used for
	interactive modification
SF(?;65536)	scale factor for AGT-10
	output
INT(1-10;1)	intensity of data display
MAXGM(1-10;10)	maximum number of seismograms
	that can be displayed 86

Iw(0-1,1,I)	flags choosing which
	seismograms will be displayed
	0-no display ; 1-display

D. Program Control Specifications

ITAPE(0-7;2)	input tape unit number
MTAPE(0-7;0)	rewind specified tape unit
IDEV(1-2;1)	AGT-10 number
ICARD(0-1;0)	read card input
INITL(0-1:0)	reinitialize program
KTLL(0-1;0)	return to master program

E. Display Specifications

LP(1-MP;1;I)	lead point of
	displayed data
<0(?;-0.4)	location of X=0,
	coordinate and data display
YO(?;-0.7)	location of Y=0,
	coordinate and data display
INCR(0-?;100)	lead point increment when
	using auto sweep
INC(0-?;0)	number of points skipped
	between each point displayed

F. Spot Display Specifications

1WIDE(1-10;10) width of spotlight in points
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G. Triager Control Specifications

MAXV(0-?;409o) maximum value of trigger level

IV. Example of a Change of Control Parameters

Initially the user has the following display:

1. 8 seismograms, numbered 1 through 8 2. INT = 1, the lowest possible intensity on the display 3. INC = 0, one data point per plot point on the screen

The parameters are to be changed to yeild the following:

1. 2 seismograms, numbers 5 and 7

Type

1. Iw = 0,0,0,0,1,0,1,0,0,0

0 -

IN(1) = 0

•

.

Ia(4) = 0

In(5) = 1

IW(6) = 0

IN(7) = 1

In(B) = 0

[w(9) = 0

Iw(10) = 0

2. INT = 2, increase screen intensity 3. INC = 2, two data points are averaged to produce one plot point. (Function switch 12 could also have been

used.)

```
PROJECT EARTHQUAKE
    SUBTASK DXD - DIGITAL TRANSFORM DISPLAY
      SUBROUTINE DXD
      JSW(I) * LAND(JW,LLS(1,23-1))
      JOFF (1) = LAND (JW, LXOR (-1, LLS(1, 23-1)))
      DIMENSION Y(200,10), ME(200,10), IBUF(2048), IMAGE(2002), IMG(200,10),
                  LP(10),MIDLE(10),NRECS(10),NREC(10),LPD(10),
                 DIALS(10), FDS(10), TDS(10), [T[ME(3,10), [T0(3,10), [T(10),
                 !TX(2),1TD1R(30),1GD1R(10),1MSPT(102),1MS(10,10),
                 BIAS(10), ICOR(24), IDGM(10), IDGRAM(10), ITXA(7), Iw(10)
                . [87(10), [378(10), NXF(10), LXF(10)
      ERUIVALENCE (IMAGE(2), IMG), (IMSPT(2), IMS)
      EQUIVALENCE (X9,XC), (Y8,YO)
      EGUIVALENCE (IBUF, MD)
      NAMELIST LREC, NPT, INIDE, BIAS, ITAPE, T, TMSCL, NSGM,
                IDEV, LP, MP, XC, YO, ITO, SCL, ICARD, INCR, DZONE, SF, INITL
                 , INC, MAXV, INT, MAXGM, IDGRAM, IW, LHXFM,
                                                          TYSEL
     3
                JNXFJIDT
      NAMELIST KILL
      DATA NULL/-1/,LREC/2048/,MAXV/4096/,DZ8NE/.0030/,1DEV/1/,
           ITAPE/2/,I%IDE/10/,X0/+0+4/,Y0/-+7/,SR/20+/,SCL/10+/,NPT/200/,
           INC/C/, INT/1/, INTSP/10/, DX/0.007/, INCR/25/, SF/1/,
           LHXFM/512/, ICURS/0/
      DATA KILL/0/
      INTEGER TRL
      PARAMETER INPUT
   10 INITL = 1
      SUTPUT(102) PARAMETER INPUT!
      IMPUT(101)
   20 IF(ICARD .EG. 1) ICARD = 0 ; INPUT(5)
      IF(INITL .EG. 0) 38 T8 100
   30 CALL INIT
C
      READ INFUT TAPE
      INITE = 0
      D9 90 I = 1,NSGM
```

```
MREC = 0
    D9 35 N = 2,1
 35 MREC = MREC + NREC(N+1)
IFILE = 10 + MREC
    De 50 K = 1,NREC(I)+1
    De 45 J=1.1XF
    CALL BININ(ITAPE, IBUF(LHXFM*(U=1)+1), LHXFM, IND)
    IF(IND .EG. 0) G9 T9 45
    IF(J .EQ. 1) G9 T9 90
    CALL WRITE (IFILE, IBUF, LREC)
   GP T8 90
 45 CANTINUE
   CALL ARITE(IFILE, IBUF, LREC)
 50 IFILE = IFILE + 1
 90 CONTINUE
    SETUP DISPLAY BUFFER
    IFLD = 1
100 I = C
    DR 160 IJK = 1, MAXGM
    IF(IW(IJK) .EG. 0) G9 T9 160
    I = I + 1
    IF THE SCALE HAS BEEN CHANGED, UPDATE DISPLAY
    IF(ISCL .NE. 0) G8 T9 101
    IF REINITIALIZATION OR LEAD POINT CHANGE, UPDATE DISPLAY
    IF((IDTD(I) +EG+ IDT(I)) +AND+ (LP(I) +EG+ LPD(I))) G9 T9 160
101 \text{ INTO(I)} = \text{IDT(I)}
    LPD(I) = LP(I)
    MREC . 0
    D9 115 N = 2, !JK
115 MREC = MREC + NREC(N - 1)
    MRECS(I) = NREC(IUK)
    IDLE = (IDT(I) - 1)/IXF
    IFILE = 10 + MREC + IDLE
    CALL READD (IFILE, IBUF, LREC)
    MIDLE(I) = (IDT(I) - IDLE*IXF - 1)*LHXFM
    De 130 J = 1, MPT
    IR = LP(I) + (J-1)*(I\setminus C+1) + \text{MIDLE}(I)
    IF(IR+GT+MIDLE(I)+LHXFM)G9 TO 120
    Y(J;I) * IBUF(IR)*SCL/SF
    GP TB 130
    STUFF ZEROS INTO THE DISPLAY
120 Y(J.I) = 0.0
```

- 1

AD-A107 584

APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U) JUN 77 C E IRVINE UNCLASSIFIED NPS-52IR77061

NL **2** or 7

```
130 CONTINUE
  160 CONTINUE
      ISCL . 3
C
      DISPLY BUFFER
      IF(IFLD .EQ. 0) G9 79 165
      CALL TIMETY
      CALL REMOVE
      CALL DSPLY
  165 IF (KSFLG .EG. C) 38 T9 170
      IFIXSPT .NE. 3) CALL SPOT
      KSPT = 0
  170 CANTINUE
      SENSE FUNCTION SAITCH OPTION
C
C
C
      FUNCTION SHITCH ASSIGNMENT
C
         NAMELIST INPUT
          DIAL OVERLAY SPTISH
         TIME SHEEP - ALL DIALS FREQUENCY SHEEP - ALL DIALS
C
C
          AMPLITUDE SCALING -
                                 DIAL 4
      8
         TRIGER -
                     DIAL 3
C
      9
         AUTO SAEEP
      10
          DIRECTION OF SHEEP
          SINGLE SHEEP
000000
      1:
      12 FREGUENCY BASE - DIAL 3
      13
          SPETLIGHT - DIAL 1
      14 REMOVE SPATLISHT
      15 TRIGGER FROM CURRENT LP, OR AUTO SAEEP IN TIME
      14
          UNUSED
  200 CALL FNS(!DEV, ISA, IER)
      IFILER +NE+ O) BUTPUT(102) IER, 'ISA'
      Jh = LXBR(JwsISA)
      L3 * \GM + 3
      De 220 I = 3,16
      IF(JS4(I) .EG. C) 39 T9 220
      ENCSDE(4,210,17X) 1
  210 F934AT(12)
      CALL TEXTO(IDEV, ITX, 1, LB, 1, 1, 3, IER)
      IF(IER .NE. C) SUTPUT(102) IER, 'SH'
      LB = LB + 1
  220 CENTINUE
      D9 230 I = LB, NGM + 16
      CALL TEXTS(IDEV, NULL, 1, 1, 1, 1, 3, IER)
      IF(IER +NE+ 0) BUTPUT(102) IER, 'NUL'
  230 CONTINUE
      CALL VCD(IDEV, DIALS, IER)
```

```
IF(IER .NE. 0) SUTPUT(ICS) IER, 'VCD'
C
      IFLD . 1
      TEST FOR MANELIST INPUT
  300 1F(USA(3) .EG. 0) 38 18 310
      18 * NGM + 17
      CALL GINPUT(IDEV, ITDIR, 13)
      CALL PAR
      J. = JSFF(3)
      IF(KILL .NE. 0) KILL = 0; RETURN IF(LSTNGM .NE. NGM) CALL INIT
      G9 T8 100
  310 IF(USA(5) .NE. 0) CALL TIMESAP; G9 T9 100
      IF(USA(6) ANE+ C) CALL FREGSAPI GR TO 100
      IF(USA(7) .NE. C) CALL SCALE; 39 TO 100
      IF(USA(8) ANE+ C) CALL TRIGER: UA = UAFF(8): 39 TO 100
      IF(USW(9) +NE+ C) CALL AUTO: SO TO 100
      IF(USA(11)+NE+ C) CALL AUTB; UR#USFF(11); GP TB 100
      IFIUSH(12) NE. C) CALL SPAN: 38 T9 100
      IF(USA(13) *NE* 0) KSPT * 0; CALL SPST; 39 TS 100
      IFIUSA(14) .NE. C) CALL SPOT; 59 TO 100
      39 79 200
      SUBREUTINE SCALE
      IF(Ads(CIALS(4) + SCLD) +LT+ DZ9NE) IFLD = C/ RETURN
      SCLOPDIALS(4)
      SCL=(1.0+SCLD)-10.0
      00 10 1=1/NGM
   10 LPO(1) = -1
      KSPT = 1
      RETURN
      SUBROUTINE TRIGER
      ISGN = C
      MAXV IS THE UPPER LIMIT OF THE TRIGGER LEVEL
      TRL =(DIALS(3) +1) +MAXV/2
      I . C
      DO 30 IUK = 1, MAXSM
      IF(IM(IJK) .ER. 0) G9 T9 30
      I = I + 1
      C=33am
      09 10 J = 2, IJK
```

```
10 MREC . MREC . NREC(J-1)
     DA 20 K=1. NREC(1)
     IFILE = 1C+MREC + (K-1)
     CALL READD(IFILE, IBJF, LREC)
     IST . 1
     BOTION TO TRISGER FROM CURRENT LEAD POINT
      IF(USA(10) .NE. 0) IST = LP(1)
     De 20 KK . ISTALHXFY
     L = KK + MIDLE(I)
      [F(([auf(L)+(SCL/SF) - TRL) -SE+ 0) LF(]) + KK; 38 T8 30
  20 CANTINUE
      IF NO TRIBGER LEVEL IS FOUND, SET THE LEAD POINT TO THE LAST
     PRINT OF THE GRAM
     LP(I) = LHXFY
   30 CONTINUE
      ENCODE (8,100, ITX) TRL
      FORMAT([8]
130
      CALL TEXTS(IDEV, ITX, 2, 1, 2, 1, 3, IER)
      IF(JER.NE.O) BUTPUT(102) JERA TRL
      KSPT = 1
  200 RETURN
      SUBROUTINE TIMESKP
      MOVE THROUGH THE TRANSFORMS IN TIME
      IFLD = C
      N1=NGM
      N2=0
      IF(\GY+GT+6)\1=6;\2=\GM+6
      [F(USA(4)+NE+0)G8 78 20
      De TRANSFERMS 1 TO 6
      De 10 1=1,N1
      IF(ABS(CIALS(I) - TOS(I)) +LT+ DZBNE) 39 TO 10
      TOS(I) = DIALS(I)
      I \cap T(I) = (1 \cdot 0 + DIALS(I)) + LXF(I)/2+1
      IF(IDT(I) +LT+ 1) IDT(I) = 1
      INSURE DISPLAY AND SPOTLIGHT UPDATE
      IFLD = 1
      KSPT = 1
```

```
CONTINUE
10
      RETURN
      DE TRANSFERMS 7 TO 10
20
      Ca 30 1=1*/5
      IF (ABSIDIALSII)
                        - TOS(1+6)) -LT- DZ9NE) 38 78 30
      TOS(1+6) . DIALS(1)
      ICT(1+6) = (1.0 + DIALS(!) ) *LXF(1+6)/2+1
      [F([DT(]+6) +LT+ 1) [CT(]+6) # 1
      INSURE DISPLAY AND SPETLISHT UPDATE
      IFLD . 1
      KSPT = 1
      CANTINUE
30
      RETURN
      SUBREUTINE FREGSAP
      CHANGE FREQUENCIES DISPLAYED FOR THE CURRENT TRANSFORM
      IFLD . C
      11=4G4
      NESC
      IF(NGM.GT.6)N1=6:\2=NGM-6
      IF(US.(4).\E.C)39 T9 20
      De TRANSFERMS 1 TE 6
      De 10 I=1.11
      IF(ABS(CIALS(I) - FOS(I)) +LT+ DIENE) 39 TO 10
      FOS(I) = DIALS(I)
      LP(1) = (1.0 + CIALS([))+(L4XF4/2)
      IF(LP(I) +LT+ 1) LP(I) * 1
      INSURE DISPLAY AND SPOTLIGHT UPDATE
      KSPT = 1
      IFLD = 1
      CONTINUE
10
      RETURN
      De TRANSFORMS 7 78 10
      D9 30 1=1.N2
50
      IF(ABS(DIALS(1) - FDS(1+6)) +LT+ DZ9NE) GB TB 30
      FDS(I+6) = DIALS(I)
```

```
LP(1+6) = (1.0 + CIALS(1) ) . (LHXFM/2)
      IF(LP(1+6) .LT. 1) LP(1+6) = 1
      INSURE DISPLAY AND SPOTLIGHT UPDATE
      KSPT = 1
      IFLD - 1
      CONTINUE
30
      RETURN
      SUBROUTINE AUTO
      AUTOMATIC SHEEP IN TIME OR FREGUENCY
      ISSN#C
      FUNCTION SWITCH DETERMINES DIRECTION
      IF(JSW(10) + NE + 0) ISGN= -1
      IF(JS%(15) .NE. 0) 39 TA 20
      SWEEP IN FREGUENCY
      09 10 1=1.NGM
      LP(I) *LP(I) + ISIGN(INCA, ISGN)
      IF(LP(I) +LT+ 1) LP(I) = 1
      IF(LP(I) .GT. LHXFM) LP(I) = LHXFM
   10 CONTINUE
      KSPT = 1
      RETURN
      SWEEP IN TIME
   20 DA 30 I = 1.NGM
      Int(I) = IDT(I) + ISIGN(I, ISGN)
      IF(IDT(I) +GT+ LXF(I)) IDT(I) = LXF(I)
      IF(IDT(I) \bullet LT \bullet \ 1) \ IDT(I) = 1
   30 CONTINUE
      KSPT = 1
      RETURN
      SUBROUTINE SPAN
      EXPAND OR CONTRACT THE FREQUENCY BASELINE
       IF(ABS(DIALS(3) - SPN) .LT. DZBNE) IFLD = O;RETURN
```

```
SPN = DIALS(3)
    1F(SPN +LE+ 0) G0 T0 20
   EXPAND THE TRANSFORM
10 NPT = (1-SPN)+200
    IF(NPT +LT+ 10) NPT = 10
    DY . 1.4/NPT
    INC = 0
   GA TO 30
    CONTRACT THE TRANSFORM
20 NPT . 200
    MIRC = LHXFM/NPT
    IF(MIRC+NPT +LT+ LHXFM) MIRC = MIRC + 1
    INC = (ABS(SPN)) + MIRC
   DX = 0.007
    DISPLAY THE FREQUENCY RANGE BEING DISPLAYED
 30 S = (NPT/T) + (INC+1)
 35 ENC9DE(8,100,1TX) S
100 FBRMAT(F8-2)
    (FBI.E.1.56.5.5.XTI.VBDI) PTX37 LIAD
    IF(IER .NE. 0) SUTPUT(102) IER, SPAN!
    D9 200 I = 1, NGM
200 LPD(I) = 0
    KSPT = 1
    RETURN
    SUBROUTINE TIMETX
    De 20 NM = 1.NGM
    I = NGM - (NM - 1)
    COMPUTE THE TIME OF EACH TRANSFORM
    K=IT(I)+(IDT(I)-1)+TMSCL
    ITIME(1) = K /3600
    ITIME(2,1) = (K-ITIME(1,1)+3600)/60
    ITIME(3,1) = x - ITIME(1,1)+3600 - ITIME(2,1)+60
    IAMP = Y(1,I)*(SF/SCL)
    FRG = LP(I)/T
    IF THE SPATLIGHT IS BN, DISPLAY THE TIME AT THE CENTER OF THE CURSON
    IF(ICURS *NE* C) FRG = FRG + (SFTA + (IWIDE/2))/T
    ENCODE(28,100,ITXA) IDGM(I),ITIME(1,1),ITIME(2,1),ITIME(3,1),
```

```
1 FR3, IAMP
  100 FRRMAT(A4,1 1,12,1 1,12,1 1,12,1 1,F7.4,1 1,15)
      CALL TEXTO(IDEV, [TXA, 7, ", 1, 1, 3, IERROR)
      IF (IERROR .NE. 0) SUTPUT(102) IERROR, 'TXS'
   20 CANTINUE
      RETURN
C
      A SUBROUTINE TO DISPLAY GRAPHICAL DATA
Ċ
      CALLS THEAD, TPACK, GRAPHA
      SUBROUTINE DSPLY
      IMAGE(1) = IMEAD(0, INT)
      L * \PT+\G* + 2
      MKZ9 + LSTYPT - YPT
      09 15 1 + 1, NGM
      K = (1 - 1) + NPT + 1
      COMPUTE THE VERTICLE SPACING OF EACH LINE
      YV = YE + (I-1)*DY
      D9 10 J = 1,NPT
      XI^{\omega} = X9 + DX+(J - 1)
      YIM = YV + Y(J_2I) - BIAS(I)
      IF(J.NE. 1) G9 T9 9
      MAKE THE FIRST POINT OF EACH LINE A MOVE
      IMAGE(K+J) = IPACK(XIM,YIM,C)
      G8 T8 10
    9 IMAGE(<+J) = IPACK(XIY,YIM,MD(J,I))
   10 CONTINUE
   15 CONTINUE
      IMAGE(L) = 0
      DP 20 1 = 1.4KZ#+NGM
      IMAGE(L+1) = 0
   20 CONTINUE
      CALL GRAPHO (IDEV, IMAGE, L, 1, IER)
      IF(IER .NE. 0) BUTPUT(102) IER, 'GPB'
      LSTNPT . NPT
      RETURN
C
C
      SPOTLIGHT A CERTAIN BAND OF EACH TRANSFORM READING OUT THE FREQUENCY
      AT THE CENTER OF THE SPOTLIGHT
      SUBROUTINE SPOT
```

```
ICURS . 1
      IF(USW(14) .NE. 0) ICLRS # 0; 38 T9 15
      WHEN THE KSPT FLAG IS ON, THE SPOTLIGHT WILL BE UPDATED WITHOUT
      READING THE AGT DIALS
      IF(<SPT .NE. 0) G9 T9 9
      READ THE AGT DIALS
      IF(ABS(DIALS(1) - SPT) -LT- DZONE) IFLD = 0; RETURN
      SPT = DIALS(1)
      SPTA = (DIALS(1) + 1) + NPT
      SPTS = SPTA + INIDE
      IF(SPT3 +LE+ NPT) G9 T8 5
      SAV - SPTB - NPT
      SPTA = SPTA - SEV
    5 CONTINUE
Č
      WITH -1<DIALS<+1 GET NUMBER OF LEAD SPOT POINT
    9 [MSPT(1) = IHEAD(C, INTSP)
      L = IAIDE+ NGM + ?
      D9 10 I = 1,NGM
      K = (I=1) + PT + I + SPTA
      DA 10 J = 1, IWIDE
      IMS(J.I) = IMAGE(K+J)
      IF(J .EG. 1) IMS(J.I) = LAND(777777768, IMS(J.I))
   10 CONTINUE
      IMSPT(L) = C
      KSFLG = 1
      3º 79 17
      ZERR THE SPOTLIGHT ARRAY, THUS MAKING EACH POINT A MOVE
   15 DA 16 I = 1,NGM
      DA 16 J = 1, IAIDE
      IMS(J.I) =0
   16 CANTINUE
      K = NGM+INIDE + 1
      IMSPT(K) = C
      I^{\star}SPT(\kappa+1) = 0
      KSFLG = 0
   17 CONTINUE
      KSPT = 0
      CALL GRAPHO (IDEV, IMSPT, L, 3, IERROR)
      IF(IERROR .NE. C) BUTPUT(102) IERROR, 'GS9'
      CALL TIMETX
      IFLD = C
      RETURN
```

```
C
C
      SUBROUTINE COORD
      ICCR(1) = IHEAD(1,INT)
C
C
      PLST Y AXIS
      (C.er(2) * IPACK(X9,Y9,O)
      YC88 = Y8 + 1.4
      ICER(3) = IPACK(X9,YCER,1)
      PLST X AXES
      De 10 I = 1,NGM
      xcaa = xa + 1.4
      YC = YC + (1-1) + CY
      K = (1-11+2 + 4
      ICOR(K) = IPACK(X0,YCOR,O)
      ICBR(<+1) = IPACK(XCBR, YCBR, 1)
   10 CENTINUE
      IC9R(X+2) = 0
      CALL GRAPHO(IDEV, ICOR, K+2, 2, IERROR)
      IF(IERROR .NE. 0) SUTPUT(102) IERROR, 'COR'
      RETURN
\alpha
      SUBROUTINE INIT
       I'.ITIALIZE THE GRAPHICS DISPLAY AND PREGRAM OFERATIONS
      CALL PAR
      DA 10 I = 1, MAXGM
      [T(1) = [T0(3,1) + 60*([T0(2,1)+60*]T0(1,1))]
      LP(I) = 1
      LPD(1) = 0
        ICT(I) = 1
       ITTD(I) = 0
      FOS(I) = 0
       TOS(I) = 0
      BIAS(I) = C.C
      DA 10 J . INPT
       Y(J:1) = 0.
      MO (J.I) = 1
       IF (J .EG. 1) MD(1,1) = 0
   10 CONTINUE
```

```
CALL DIINIT(IDEV, ITDIR, 30, IER)
     IF(IER +NE+ 0) SUTPUT(102) IER, 'DTIN'
     CALL TIMETX
CALL DGINIT(IDEV, IGDIA, 10, IER)
     IF(IER .NE. 0) SUTPUT(102) IER, 'DGIN'
     CALL DSPLY
      TRL = 0
     ENCODE (8,20,17X) TRL
  20 FORMAT(18)
      CALL TEXTE(IDEV, ITX, 2, 1, 92, 1, 3, IER)
      IF(IER .NE. 0) PUTPUT(102) IEP, 'ITRL'
      S = NPT*(INC+1)/T
      ENCODE(8,30,(TX) S
   30 F8RMAT(F8+2)
      CALL TEXTS(IDEV, ITX, 2, 2, 92, 1, 3, IER)
      IF(IER .NE. 0) SUTPUT(102) IER, 'ISPAN'
      LSTNPT = LSTWID = 0
      LSTNGM = NGM
      CALL COORD
      RETURN
C
C
      COMPUTE PARAMETERS NECESSARY FOR PREGRAM OPERATION
C
      SUBROUTINE PAR
      D8 10 I=1, NSGM
      NSF - NUMBER OF TRANSFORMS PER GRAM
      IXF - NUMBER OF TRANSFORMS PER 2048 (1.E. PER DRUM FILE)
      NREC - NUMBER OF DRUM FILES
      IXF = LPEC/LHXFM
      NREC(I)=NXF(I)/IXF
      IF(NXF(I)+3T+NREC(I)+IXF): REC(I)+NREC(I)+1
      CONTINUE
10
      NG* = 0
      I = C
      DA 20 IUK = 1. MAXSM
      IF(IW(IJK) .EG. 0) G9 T8 20
       I = I + 1
       NGM=NGM+1
       IDGM(I) = IDGRAM(IJK)
      LYF(1)=NXF(IJK)
   BULLINED DS
       DX = 1.4/NPT
       DY = 1.4/NGM
       IF(SCL .NE. SCLSAV) SCLSAV*SCL; ISCL = 1
       IF(SF .NE. SFSAV) SFSAV = SF; ISCL = 1
       RETURN
C
```

On-Line Extended Signal Processing

This is a revision of the Extended Signal Processing program, which was originally written for accustic data. The prime motivation for restructuring FSP was the very considerable amount of time required to process the seismic data. Previously, the fast Fourier transforms were taken as a separate step in the data analysis and were stored on magnetic tame. For data sets consisting of hundreds of thousands of sample noints, separate computation of the transforms is reasonable; however, when the data consisted of only a few thousand points, the overhead in terms of man hours for magnetic tame manipulation is excessive. Thus a version of FSP was written which calls a subroutine to preform the transforms on the time data, sending the results back to ESP for display.

Another improvement in FSP was the addition of a multiple input file capitility allowing the user to move from one
seismogram to the next with ease. Previous versions of ESP
had required complete program reinitialization before a new
data set could be processed.

A useful addition to the program was its hard-cony option. Any picture on the AGT screen could be read out onto magnetic tane for subsequent processing on the PDP 11/50 to produce line drawings on the Versated printer-plotter. This option is particularly useful when qualitative comparison of many siesmic spectra is desired.

To provide the user with greater flexibility in data handling, the NIFTY tape handling package was included in the Un-Line-ESP package.

The hasic function of ESP itself is to provide a versatile display of transformed signals in three dimensions. Unlike DXD, it allows the user to study, for one seismic record, the dynamic characteristics of the signals in both the frequency and time domains. Obtions are chosen using the AGT-10 function switches and often require the control dials. Since ESP does not use the standard package of graphics submoutines, it differs in some respects from DSD and DXD.

i. Namelist

This option is always orerative and does not have to be signaled by a function switch. When a * carriage return is issued by the operator, all newly specified namelist parameters are updated in the program.

ii. Inout halt

Unless this ontion is selected, the program will continue to compute transforms and update the display. Thus when something of interest appears on the screen, it is possible to stop and inspect the transforms in greater detail.

nii. Amplitude Scaling

nalting the display update process and allowing the operator to modify the scale factor of the displayed data, this option provides an easy alternative to scale ing through namelist.

iv. Frequency sweep

With both automatic and single sweep modes, the operator can inspect all frequencies of the display despite the fact that the transforms may be too long to allow the entire spectrum to appear on the screen at once.

v. Sontliant

Control dials are used to set up to three spotlights on the desired frequencies. As the display is updated, interesting or promising frequencies are accentuated.

vi. Hardcopy

At any time the operator may choose to record the display on magnetic tape for subsequent processing into hardcopy output. It adds to the versatility of the program since not all analysis needs to be done in the laboratory.

vii. Harmonic display

This option is useful in some applications by allowing the operator to examine and spotlight the time history of selected frequency harmonics. It was not extensively used in this project.

I. On-Line ESP - Operating Summary

On-line ESP was written to save time and space during the processing of seismic data. As an alternative to the three-step process of performing the transforms, storing them on magnetic tabe, and finally displaying them using ESP, a program has been written which performs the transforms and supplies them to ESP as they are needed. The only tape necessary is that containing the original time data; however, it is possible to create an output tape containing x-y pairs for plotting on the Versatec Matrix Plotter.

Because of the limitations of the core size of the XDS 9300, On-Line-ESP was written as an overlay backage. It consists of a main segment and three primary overlay segments: ESP, xFORM, and NIFTY. ESP is the basic display program, XFORM computes the Fast Fourier transforms of the seismic data, and NIFTY is used for tape manipulation.

II. Program Modules

A. NIFTY

This is an all-purpose tape handling package. It can be called prior to the first processing of the data or can be called from ESP. Upon returning from NIFTY, control is transfered directly to the heginning of ESP. It is the user's responsibility to position the input tape at a header record when completing use of NIFTY. The data tapes used in this project have one seismogram per file, so positioning at the beginning of a file is sufficient. If the multiple file option of ESP is being used, the program will require parameter input and a card deck should be ready when it is reentered. If no parameter update is necessary, a "" card is sufficient.

NIFTY asks for commands, which can be any of the following:

1. RECORDS = 1	space forward or backward a given
	number of records
2. FILES = 1	soace forward or hackward a given
	number of files
3. TAPRWD = 1	rewind a tape
4. APTFOF = 1	write an end of file
5. DUMP = 1	read a tape and dump on line printer

Subsequent instructions to the user will be issued after '*
c/r' has been typed on the control console.

copy one tape to another tape

B. XFORM

6. COPY = 1

This program performs the transforms. It receives all of its parameters from FSP. Most of the parameters are given in the header record; however, there are a few which should be specified when FSP is initialized:

LFT - length, in points, of the transform

LAG - lag, in points, between transforms

noise transform.

NONDISE - the number of transforms to be averaged to
gether to create the mean noise transform, which
will be subtracted from all of the transforms prin

or to their being displayed on the AGT. If

NONDISE = 0, the transforms will be displayed
without noise subtraction. If NONDISE = 1000 all

of the transforms will be used to find the mean

Transforms will be taken for as much data as possible.

The maximum number of possible transforms will depend upon their length and the lag between the transforms:

number of transforms = (number of sample points + LFT)/LAG .

Because the overlay system requires a non-trivial amount of time to transfer from one program module to another, it was found that program efficiency could be improved by storming transforms on the drum. While in XFCRM, transforms are stored on the drum in a 1K word data area. Thus if the transform length is 256 points, eight transforms could be stored. The micror image half of the transform having been discarded. When control returns to ESP, the drum is read and the transforms are displayed with the maximum speed.

C. ESP

This is the Extended Signal Processing Fourier Transform 108

display program. A maximum of ten transforms are displyed simultaneously within a three dimensional plot The x axis is frequency, the y axis is amplitude or power, and the z axis is time. An excellent hidden line removal algorithm developed by Albert Wong allows the display to be rotated and scaled with no distortion of the image. Its jobs are to request transforms from XFORM and to communicate with the AGT either to change its display parameters or to send it new transforms.

Because of its interactive capibilities, many parameters must be specified when the program is initialized and most can be changed to modify the appearance of the display. These parameters are listed below. Many parameters are initialized within the program and others are given their values via card input. For the latter group, each parameter is followed by its default value in brackets.

Function Switch Options

The program's dynamic interactive capibility is provided by the function switches, control dials, and teletype console available on the AGT-10. The function switches are listed below with their conallary control dials indicated when applicable.

1 - restart

Flags will be set for program reinitialization. The user is given the opportunity to modify namelist parameters before proceeding.

2 - sideline display

The most recently displayed transform is given an additional separate display on a section of the screen. This allows the operator to inspect each transform as it appears with greater detail.

3 - rotation (dial ()

while this function switch is on, dial C may be used to rotate the display through 180. The hidden line removal algorithm will help to yeild a display which can be viewed from the sides as well as in a waterfall.

4 - display loop

Update of the display is continuous unless this function switch is on. The use of this function switch allows the operator to examine certain spectra in more detail and to apply other function switch options for enhancement of the data.

5 - snotlight adjust (dials A, B, and C)

As many as three spotlights may be displayed simultaneously. The spotlight adjust option allows the user to reposition the spotlights using the control dials.

6 - harmonic option

This function switch causes the spotlights to move simultaneously while they are separated from each other by a specified harmonic factor.

7 - spotlight display

The sportight option is turned on and off with this function switch. Current initialization proceedures cause the spotlight to be on when the display begins.

8 - amolitude scaling (dials D, E, and F)

Control dials are used to alter the amplitude of the display. Because up to three data windows may be displayed concurrently, their amplitude scaling is requilated separately by three different control dials.

9 - frequency sweep

This ontion caused continuous frequency sweeping of all spectra being displayed. Function switch 10 is used to reverse the direction of the sweep. When the frequency sweep option is turned off the lead point frequency of the display will remain at the chosen frequency as the display is updated.

10 - direction of sweep

Use of this function switch reverses the direction of the frequency sweep in either the continuous or sin-

11 - single sweep

The user is allowed to sweep the data in frequency one frequency increment with this function switch. Selection of function switch 10 will cause a reversal of the sweep direction.

13 - hard-copy

Each time that this function switch is depressed the

x=y coordinates of the current display are output to magnetic tabe with a header record.

14 - endfile on hard-copy tape

This option allows the user to put an end of file mark on the hard-copy output tape. The plotting program expects an end of file mark at the termination of all data sets. The output tape will be rewound after the end of file is written.

Control parameters

ISFQ(?;512)	sampling rate in points per second (10)
NBC	number of box car averages (1)
	Several transforms may be averaged
	together to produce a spectrum on
	the screen.
MDLAY(?;10000)	scaling parameter
N1(?;1)	averaging parameter
wOINT(?;1.0)	sideline window intensity on AGT=10
ISGRT(0,1;1)	power ontion
	Power, the squares of the amplitudes
	of the Fourier coefficients, will be
	disclayed on the AGT-10.
SLINT(?,1.0)	sideline intensity on AGT-10
SINT(?;1.0)	line intensity on AGT-10
wINT(?;0.5)	window intensity on AGT-10
LFT(?;8192)	length of transform in points

LAG(?:512)	lad between transforms in points
STRT1(?;3.5)	frequency of leadpoint of first
	window
IEOF(0,1;0)	flag to indicate multiple file
	input tape
ITAPE(?;1)	input tape unit number
LG10(0,1;0)	flag to take base 10 logarithm
	of transform before displaying
	it
LGNAT(0,1;0)	flan to take the base e log of the
	transform before displaying it
STRT2	frequency of the lead point of the
	second window
STRT3	frequency of the lead point of the
	third window
SAMPTS	number of sample points on time
	sequence (read from header record)
LGENT	transform counter
LREC(?;1024)	lenath of input record
INITE(0.1;0)	initialization flag
ICARD(0,1;0)	card input flag
IREP(0,1;0)	repeat flag
IREWIND(0,1:0)	rewind flag
CSPI(0,1;0)	flag to obtain transforms from
	CSPI-125 (inoperative)
KNIFTY(0,1;0)	flag to signal transfer to NIFTY
	subroutine package
NONOISE(?;0)	noise subtraction from transforms

(see XFORM description)

Display parameters

IWIDE(?:10) width of spotlight in points NSL (0-3;2) number of spotlights ISWEEP frequency sweep option SWINC(?) frequency sweep increment in Hz SWU(?) upper limit of frequency sweep SwL(?) lower limit of frequency sweep inverse scale factor for display ISCL(?;500) NPT(0-150;128) number of points per line on AGT display number of lines of transforms on LINE (0-10:10) AGT display NGRP number of harmonic groups HARM1 harmonic window 1 HARMS harmonic window 2

side-line display option

Movie parameters

LSD(0,1;0)

NFRAM number of frames per second

NSHUT shutter speed

Output parameters

IDATE date: month, day, year site identification in BCD ISITE

Input Tape Format

Each sequence of time data must be preceded by a standard header record in which the following parameters are specified:

word	value
1	number of 1024 records of time data
	If the number of sample points is not
	evenly divisible by 1024, an addi-
	tional record is used.
5	event identification
3	date - month
4	date - day
5	date - vear
b	site identification
7	number of channels
8	total number of sample points on
	seismogram
4	sampling rate in samples per second
10	time - hours
1.1	time - minutes
15	time - seconds

The header record is followed by the time samples which are 115

divided into records having a length of 1024 words. If not completely filled, the last record will be badded with zeros.

Hard-copy Output Tame Format

word

If data for plotting on the Versatek are desired, they may be recorded on magnetic tape and then taken to the PDP 11/50 system for further processing. Each record is 300 words long and all words are right justified. A complete plot will consist of eleven records: one header record and ten data records. The header record has the following format:

value

1	number of points per line
2	number of lines
3	x-increment (AGT)
4	y-increment (AGT)
5	current line pointer (AGT)
6	number of spotlights
7	center of spotlight 1
8	center of spotlight 2
q	center of spotlight 3
10	start time - hours
1 1	time - minutes
12	time - seconds

13	length of transform
14	lag between transforms
15	sampling rate of data
	site identification (BCD)
1 7	site identification (BCD)
18	site identification (BCD)
19	lead point of data currently
	being disclaved on AGT
5.0	scale factor
21	date - month
5.5	date - dav
23	Tate - vear

The data records will consist of up to $150\ x\text{--}v$ pairs per record.

To operate On-Line FSP:

- 1. mount program tape on MT34 and use a rerun deck to enter if
- 2. mount the input tabe on MT1A and, if desired, an out- put tabe on MT2A
- 3. a message will appear on the control console 'SET UP AGT FOR ESP'
- 4. carry out this instruction by
 - a. typing on the AGT control console RESET(4,4):
 - b. when disk activity has ceased, type ESP93!

Fast Fourier Transform Control Program

XFORM - Operating Summary

Inis program performs transforms on earthquake data. The description given here is for its stand-alone operation for which data are

input from and cutout to magnetic tape. The spacing, in points, between transforms can be specified by the user. The number of records for each time trace must be specified, $NOREC_{\star}$ as well as the total number of grams to be transformed, $NG^{\rm M}$.

OPERATING PROCEEDURE:

This program is part of the EARTHQUAKE overlay package. It is called when

COMMAND ME is followed by

XEORM

with this program operating in core the user is issued a command for

PARAMETER IMPUT

for which there are two options to type in on the terminal:

ICARD=0 resulting in no parameter input (in most cases an error)

ICARD=1 resulting in input from the card reader usually including

MOREC, NGM, and LAG.

The program will then start the transforms with the input data on tape unit 1 and the output on tape unit 2. After the transforms have been performed on a particular time sequence, an FNDFILE will be written and the following information will be output:

IFILE=the number of the file of the transforms, with respect to the first set of transforms

IREC=the number of records output for that particular set of transforms. Since these are recorded on IK records, IREC = number of transforms.

Upon completion of all of the transforms, control will return to the main program, which again requests:

COMMAND ME.

I. Description

NIFTY is a self-contained, general-nurpose program for handling tapes. It is accessable in two forms: as a stand-alone program or as part of an overlay package. Once NIFTY is in the computer, its operating proceedure is the same regardless of its status as a main program or a subroutine. NIFTY maintains a dialogue with the operator, asking for input parameters and dispensing information.

II. Operating Proceedure

The reader is referred to the operating instructions of the various overlay packages when calling NIFTY as an overlay is desired. To use the stand-alone version, the NIFTY DRIVER and its Metasympol subroutines are compiled.

when the program is in the computer and execution is begun, NIFTY takes the initiative asking:

NHAT DO YOU WANT TO DO

The user then responds by asking for one or more of six options, which are listed below in order of priority:

A. FILES = 1

skip a given number of files

R. RECORDS = 1

skin a given number of records

C. DUMP = 1

dump a record on the line printer

0. COPY = 1

copy a record from one tame to another

E. WEOF = 1

write an end of file on the tape

F. TAPRWD = 1

rewind the tabe

these instructions should be followed by:

c/r *

c/r

Program control will be transferred to the subroutine designed to execute the requested option. In each case the operator will be asked to specify various parameters.

When NIFTY is party of an overlay an additional option allowing return to the main overlay segment is available. It is the KILL option. By typing KILL = 1, control is returned to the calling program.

III. NIFTY Subroutines

At the start of each subroutine, a message will be printed on the XDS 9300 teletype consol. It will state SPECIFy and will be followed by a list of parameters which must be defined in order that the subroutine execute property. If a subroutine is being called repeatedly, its parameters will be remembered between calls; however, if a different subroutine call preceeds the recall of a 'ubroutine, the user is advised to play it safe and respectfy all

parameters.

A. FILES

This subroutine will space a magnetic tape forward or backward the number of files requested by the operator. An error will result if either the beginning or end of tape mark is encountered, so the user is required to keep track of which file is currently being accessed and should know the total number of files on the tape.

SPECIFY NFILE, DIR, UNIT

where

NFILE = number of files to be skipped

DIR = direction 0 - forward; 1 - backward

UNIT = tape unit 1 or 2

B. RECORDS

By choosing this option if is possible to position the tape forward or backward a given number of records. An error will occur if the end of tape or beginning of tape marks are encountered and the user must remember where in the current file the tape is positioned.

SPECIFY UMIT, NREC, DIR

where

UNIT = tane unit 1 or 2

NREC = number of records to be skipped

DIR = direction 0 - forward; 1 - backward

C. DUMP

One can dump a few records of either a binary or BCD tape onto the lineprinter using this option.

SPECIFY LREC, NREC, MODE, UNIT

where

LREC = length of records

NREC = number of records

MODE = 1 for binary: 0 for BCD

UNIT = tame unit 1 or 2

d. COPY

By using this option, one tape can be copied onto another er either as is or with a conversion from binary to BCD or vice versa. This is a convienent way of merging two tapes.

SPECIFY LREC, WREC, MODF, INUNIT, OTUNIT, EOF

where

LPEC = length of records

NREC = number of records

INMODE = 1 for binary; 0 for BCD on input tape

OTMODE = 1 for hinary; 0 for BCD on output tape

INUNIT = input rape unit

OUTUNIT = output tape unit

EOF = end of file option for output tape.

1 to write an endfile after copving is completed

0 for no endfile mark

e. WRTLOF

This option allows the user to write an end of file on a tape with no other tape activity or with a subsequent rewind.

SPECIFY UNIT, RWOPIN

where

UNIT = tabe unit 1 or 2

RWOPIN = option to rewind the tape after the EOF.

1 for rewind

0 for no rewind

f. TAPRWD

The specified tape unit is rewound.

SPECIFY UNIT

where

UNIT = tabe unit 1 or 2

Each list of specifications should be followed by * c/r

Some of these subroutines will send messages to the user upon completion of the operation, then the program will return and reissue its original request:

WHAT DO YOU WANT TO DO

•	ESP - XFORM CONTROL PROGRAM	000:
•		2000
	INTEGER PTR,CSPI	0000
	INTEGER XFCT, XCNT, SAMPTS	000 ⁴
	COMMON IP, LINE, NGRP, NPIG, NSL, ITIME, LFTIME, IRESO, LG(3),	3000
	* IHARMI, IHARMZ, INIDE, NERAM, NSHUT, INTL, INTS, INTSL, INTLO, NPT,	0006
	* LAG, MOLAY, IEEF, LFT, N1, KILL, ITAPE, NBC, INITL, ICARO,	0007
	* MTAPE, ISWEEP, ISGRT, ISCL, IREP, CSPI, ISTUP(3),	3008
	* LP(3), LGRP, ISCP, LSPEC, NREC, NCTR, IPTR, LPTR, LSD, IDISPY,	0005
	+ ISCAN, ISCAL, IFILE, IAB, JAB, IREWIND, STRT1, STRT2, STRT3,	0010
	* HARM1, WINT, SINT, SLINT, HOINT, HARM2, SWINC, SWL, SWU, SINC, IFLAG,	0011
	* PTR, ICTR, ISHT, NOREC, ISTAR, TF, ISWI, ISWU, ISWL, ISPTN, NP	0012
	* , KNIFTY, NONOISE, XFCT, XCNT, LG10, LGNAT, IDATE(3), ISITE, LGCNT,	0013
		0014
	* SAMPTS:ISF3	0015
•	A MET TOT CASE AND NOVOLOGI	0016
	NAMELIST KNIFTY, NONDISE	0017
*		0012
*		0015
5	CALL UPSET	
	BUTPUT(102) 'SETUP AGT FOR ESP'	0020
	INPUT(1C1)	0021
	ISTAR * 1	2260
	IF(KNIFTY .EG. 1) KNIFTY = 0; CALL NIFTY	0053
10	CALL ESP	0054
	IF (KNIFTY .EQ. 1) KNIFTY = 0; CALL VIFTY; 3° T9 10	0025
	IF(KILL *EQ*1) KILL = 0; 3UTPUT(102) 'STP'; [NPUT(101)	0026
	IF(CSPI •EQ• 1) G0 T0 20	0027
	CALL XFORM	9058
	G8 T9 10	0025
20	BUTPUT(102) 'CIRCUS'	0030
	G\$ T8 10	0031
	FVC	0032

```
000:
       PAGE
                                                                                 0002
               5
       EQU
                                                                                 0001
       EQU
                                                                                 0004
                                                                                 0005
                           SPACE THE TAPE EITHER FORWARD OR
       FERREC BAKREC
                                                                                 0006
       BACKWARD ! RECORDS
                                                                                 0007
       CALLS 9SETUPN, R/ISPS
                                                                                 2000
       CALLED BY MAIN PROGRAM
                                                                                 0001
                           N = UNIT, I = N0.9F RECORDS
       CALL BAKREC(N.I)
                                                                                 0010
                                                                                 0011
                                                                                 0012
                0
SBAKREC PZE
                                                                                 0010
                BAKREC
       LDA
                                                                                 0014
                FORREC
       STA
                                                                                 0015
                FORREC+1
       BRU
                                                                                 0016
                                                                                  0017
                                                                                  0018
*FERREC PZE
                0
                                                                                  0015
                9SETUPN
       BRM
                                                                                  0020
       PZE
                                                                                  005:
                               ; UNIT
       PZE
                0
FUNIT
                                                                                  0055
                               ;Ne. OF RECORDS
       PZE
                0
FAREC
                                                                                  0023
                *FUNIT
       LDA
                                                                                  0024
                FUNT
       STA
                                                                                  9356
                ASGN
       BRM
                                                                                  0026
       PZE
                                                                                  0027
       PZE
FUNT
                                                                                  0025
                ARFOT
       LDA
                                                                                  0025
                =03000000
        ADD
                                                                                  0030
                FOCAL
        STA
                                                                                  0031
                *FNREC
        LDA
                                                                                  0032
                = 0
        SKU
                                                                                  0030
                RCEND
        BRU
                                                                                  0034
                BAKREC
        LDB
                                                                                  0035
                = 077777
                               GB BACKWARDS
        SKB
                                                                                  0036
                *+2
        BRU
                                                                                  0037
                ( - A , A )
        COPY
                                                                                  3800
                TFDT+4
        STA
                                                                                  0035
        BRM
                 2719PS
                                                                                  0040
        PZE
                                                                                  0041
        PZE
FOCAL
                                                                                  0048
                 TEDT
        SKN
                                                                                  0043
                 $+2
        3RU
                                                                                  0044
                 3-2
        BRU
                                                                                  0045
                 BAKREC
 RCEND
        STZ
                                                                                  0045
                 FORREC
        BRR
                                                                                  0047
        PAGE
                                                                                  0348
        BAKSON FORSON SCANS FORWARD OR BACKWARD ON A TAPE FOR A
                                                                                  0045
                                                                                  0050
        KEYWORD OR AN END FILE MARK
                                                                                  0051
        CALLS SETUPN, R/IBPS, BCDCVT, ASGN
                                                                                  0057
        CALLED BY
                      MAIN PROGRAM
                                                                                  0050
                                                                                   005-
```

```
0053
                                                                                      0054
SBAKSON PZE
                 0
                                                                                      0057
       LDA
                BAKSCN
                                                                                      005
                FORSCN
       STA
                                                                                      005
                 FORSCN+1
       BRU
                                                                                      006.
                                                                                      0061
                                                                                      0067
SFORSON PZE
                                                                                      0060
                 9SETUPN
       3RM
                                                                                      006-
                 2
       PZE
                                                                                      0065
SUNIT
       PZE
                 0
                                                                                      0066
       PZE
                 0
SESF
                                                                                      0067
                 COUNT
        STZ
                                                                                      3000
                 *SUNIT
       LDA
                                                                                       0065
                 SUNT
        STA
                                                                                      0070
                                 SEARCH SYMBOL TABLE
        BRM
                 ASGN
                                                                                      007:
        PZE
                                                                                       0072
        PZE
                 0
SUNT
                                                                                       0073
                                 :600 - 4 CHARACTER/WERD
                 =C6C0
        LDA
                                                                                      0074
                                 STORE MODE IN FOT
                 MODE
        STA
                                                                                       0075
                                 PUT EOF KEYWORD IN FOT
                 =017170000
PLC1
        LDA
                                                                                       007+
        STA
                 TFDT+4
                                                                                       0077
                                 GET NO. OF ESFIS
                 *SE8F
        LDA
                                                                                       0073
        SKY
                 = 0
                                                                                       0075
                 FEND
        3RU
                                                                                       0080
        SUB
                 = 1
                                                                                       0081
                 COUNT
        STA
                                                                                       0082
                 BAKSON
        LD9
PLC2
                                                                                       0083
        LDA
                 ARFDT
                                                                                       0084
        ADD
                 *03000000
                                                                                       0085
                                 SCAN BACKWARDS
                 #C77777
        SKB
                                                                                       008€
        BRU
                 $+2
                                                                                       0087
                 -00100000
        COA
                                                                                       3800
        STA
                 SCNCAL
                                                                                       0085
                 RYIBPS
0918
        BRM
                                                                                       0090
        PZE
                 1
                                                                                       0091
SCNCAL PZE
                 0
                                                                                       0092
                 TFOT
        SKN
                                                                                       0093
                 $+2
        BRU
                                                                                       0094
                 $-2
                                 : 49
        BRU
                                                                                       0095
                 TFOT
        LDA
                                                                                       0096
                                 BEGIN OR END TAPE
                  =06000000
        SKU
                                                                                       0097
                 FEND
        BRU
                                                                                       3600
                  *SEEF
        LOA
                                                                                       0095
                  = 0
         SKU
                                                                                       0100
                  CNTR
         BRU
                                                                                       0101
                  TEDT
         LDA
                                                                                       0102
         SKE
                 =010000000
                                                                                       0100
                 9190
       용유다
                                                                                       010-
                  COUNT
         SKR
 CNTR
                                                                                       0105
                  2019
         BRU
                                                                                       010c
                                 : WAS THERE BACKSCANNING
                  BAKSCN
         LCA
                                                                                       0107
                  ■ G
         SKU
                                                                                       0108
         386
                  FEND
                                                                                       0109
         LCA
                  SUNIT
```

```
0110
                PLC3
       STA
                                                                                   011:
       LDA
                                                                                   0117
                PLC4
       STA
                                                                                   0110
                               :00 FORWARD 1 RECORD TO GET PAST THE ESF
                FORREC
       BRM
                                                                                   0114
       PZE
                                                                                   0115
       PZE
                0
PLC3
                                                                                   0116
       PZE
                0
PLC4
                                                                                   0117
FEND
       STZ
                BAKSON
                                                                                   011:
       3RR
                FORSON
                                                                                   0115
                                                                                   0120
                                                                                   0121
COUNT
                0
       PZE
                                                                                   0127
       PAGE
                                                                                    0121
                                                                                   0124
       BCDCVT
                    CONVERTS A WORD TO BCD
                                                                                   0125
       CALLS
                   NONE
                                                                                    012t
                     ASGN, FORSON, BAKSON
        CALLED BY
                                                                                    0127
                                                                                    0128
                                                                                    2510
                0
SECDOVY PZE
                                                                                    0130
                9SETUPN
        3RM
                                                                                    0131
        PZE
                1
                                                                                    0132
WERD
        PZE
                                                                                    0133
                 STARE, 1
        STX
                                                                                    0134
                 =0200000-4,1
        LDX
                                                                                    0135
                 =060606060
        LDA
                                                                                    0136
                 NAMTAB
        STA
                                                                                    0137
                 NAMTAB+1
        STA
                                                                                    013
                 ABRD
CLSSP
        LOB
                                                                                    013:
        ALSB
                 1
                                                                                    0140
                 (O.A)
        COPY
                                                                                    0141
        DIV
                 =10
                                                                                    0142
                 (A,B),(B,A)
        CBPY
                                                                                    0143
        STB
                 MORD
                                                                                    014-
                 MASK
        LDB
                                                                                    0145
                 NAMTAB
        STS
                                                                                    014¢
                 NAMTAB
        LDA
                                                                                    0147
        CRSA
                                                                                    0140
                 NAMTAB
        STA
                                                                                    0145
                 DLeeP.1
        ERX
                                                                                    0150
                 ELSEP
        BRU
                                                                                    0151
                 WORD
 DLESP
        LDA
                                                                                    0152
                 = 0
        SKE
                                                                                    0153
                 CLeep
        BRU
                                                                                    0154
                 STERE,1
 ELSSP
        LOX
                                                                                    0155
                 BCCCVT
        BRR
                                                                                    0156
        PZE
 STERE
                                                                                    0157
                 277
        PZE
 MASK
                                                                                    015
        PAGE
                                                                                    015
                                                                                    0160
                  FINDS SYMBOL TABLE ADDRESS OF TAPE UNIT
        ASGN
 ٠
                                                                                    016: 4
        CALLS
                   RIRSTS
                                                                                    0162
                   ALL TAPE HANDLING SUBROUTINES
       CALLED BY
        WILL CAUSE AN ABORT IF AN ADDRESS CORRESPONDING TO THE UNIT
                                                                                    0160
                                                                                    016-
         IS NOT FOUND
```

· · ·

```
0165
                                                                                     0166
                                                                                     016
                                                                                     0168
$ASGN
       PZE
                                                                                     016°
                9SETUPN
       BRM
                                                                                     0170
       PZE
                                                                                     0171
TUNT
       PZE
                 0
                                                                                     0172
                 TUNT
       LDA
                                                                                     0170
                 ASGN1
       STA
                                                                                     0174
                 BCCCVT
       BRM
                                                                                     0175
        PZE
                                                                                     017€
ASGN1
       PZE
                 0
                                                                                     0177
                 RIRSTS
ASGN2
       BRM
                                                                                     0175
        PZE
                                                                                     0175
                 NAMTAB
        PZE
                                                                                     0180
                 = ()
         SKU
                                                                                     018:
                 TERR
        3RU
                                                                                     0132
                 TFOT+5
        STA
                                                                                     0183
                 ASGN
        BRR
                                                                                      018-
                 NAMTAB
TERR
        LDA
                                                                                      0185
                 45G+1
        STA
                                                                                      018€
                 RNABRY
        BRM
                                                                                      0187
        PZE
                                                                                      018
                 MSG
        PZE
                                                                                      0185
                                                                                      0190
                                                                                      019:
                 8,
NAMTAB TEXT
                                                                                      0192
                 3
        PZE
                                                                                      0193
        PZE
MSG
                                                                                      0195
                          NOT FOUND
        TEXT
                 16,
                 TEST
 ARFDT
        PZE
                  0
 TEDT
         PZE
                  0
         PZE
                  С
         PZE
                  0
 MODE
         PZE
 DIRECT PZE
                  C
 FCB
         PZE
                  0
         PZE
         PAGE
                                     READ OR WRITE A TAPE IN EITHER BCD OR
                    TUCKNINIE
         BCDIN/OUT
         BINARY
                  ASGN, 9SETUPN, R/IBPS
         CALLS
         CALLED BY
                      MAIN PROGRAM
                  0
 SHINBUT PZE
                  BINBUT
         LDA
                  BCDBUT
         STA
                  BCDIN
```

0194

0200 0201

0202

0203

0204

0205

0206

0207

3020 0205

0210

021:

0217

0213

0214

3150 021t

0217

021:

0215

129

STA

```
0220
                 -C1
       LDA
                                                                                       0221
                 3 INFLG
       STA
                                                                                       0555
                 BCDIN+1
       BRU
                                                                                       0553
                                                                                       0224
                                                                                       0225
SBININ PZE
                 0
                                                                                       0556
                 BININ
        LDA
                                                                                       0227
                 BCDIN
        STA
                                                                                       0228
        LDA
                 =01
                                                                                       0559
                 BINFLG
        STA
                                                                                       0530
        BRU
                 BCDIN+1
                                                                                       0231
                                                                                       0535
                                                                                        0533
SBCDBUT PZE
                                                                                        0234
                 BCDBUT
        LDA
                                                                                        0235
                 BCDIN
        STA
                                                                                        0236
        BRU
                 BCDIN+1
                                                                                        0237
                                                                                        8850
                                                                                        0239
SECDIN PZE
                                                                                        0240
        BRM
                 9SETUPN
                                                                                        0241
        PZE
                                                                                        2450
                                  TAPE UNIT
        PZE
                 0
BUNIT
                                                                                        0243
                                  BUFFER ADDRESS
BEUF
        PZE
                  0
                                                                                        0244
                                  ; RECORD LENGTH
        PZE
                  0
BREC
                                                                                        0245
BIND
        PZE
                  0
                                                                                        0246
                  *BIND
        SYZ
                                                                                        0247
                  *BUNIT
        LDA
                                                                                        0248
         STA
                  BUNT
                                                                                        0249
         BRM
                  ASGN
                                                                                        0250
         PZE
                                                                                        0251
BUNT
        PZE
                                                                                        0252
                  =0600
         LDA
                                                                                        0253
                  BINFLG
         LDB
                                                                                        0254
                                  ; IS FLAG SET - BINARY
                  =077777
         SKB
                                                                                        0255
                  $+2
         BRU
                                                                                        0236
                                  ; YES
                  =01000
         ADD
                                                                                         0257
                  MODE
         STA
                                                                                         0258
                  BINFLG
         STZ
                                                                                         0259
                  33UF
         LDA
                                                                                         1360
                  *BREC
         LDS
                                                                                         3261
                  TFDT+1
         STD
                                                                                         026.
                                  FDT ADDRESS
                  ARFDT
         LDA
                                                                                         0263
                  BCDBUT
         LDB
                                                                                         -264
                  =077777
                                   TUTTUE:
         SKB
                                                                                         0265
                                   : N9
                  $+2
         BRU
                                                                                         0266
                  =04000000
                                   ; YES
         ADD
                                                                                         0267
                  BCAL
         STA
                                                                                         8950
                  TUBCDE
         STZ
                                                                                         0269
                  RNIBPS
         BRY
                                                                                         0270
         PZE
                                                                                         0271
                   0
         PZE
 BCAL
                                                                                         0272
                   TFDT
         SKN.
                                                                                         0273
                   5+2
         BRU
                                                                                         0274
                   $-2
         BRU
```

```
0275
               TEDT
       LDB
                =C16C00C00
                                                                                 0276
       SKB
                                                                                 0277
                BFIN
       BRU
                                                                                 0278
                = C1
       LDA
                                                                                 0279
                *BIND
       STA
                                                                                 0880
BFIN
       STZ
                BINFLG
                                                                                 0281
               BCDIN
       BRR
                                                                                 0585
                                                                                 0283
                                                                                 0284
BINFLG PZE
                                                                                 0285
       PAGE
                                                                                 0286
       WESF
                 WRITES AN END OF FILE WITH AN OPTION TO REWIND THE
                                                                                 0287
       TAPE AT THE USER'S REQUEST
                                                                                 3886
       CALLS 9SETUPN, R/ISPS, RWND
                                                                                 0289
       CALLED BY MAIN PROGRAM
                                                                                 0290
       CALL WESF(N, IR) N=UNIT, IR=0 8R 1 + NS REWIND SR REWIND
                                                                                 0291
                                                                                 0292
                                                                                 0293
                                                                                 0294
SWESF
       PZE
                                                                                 0295
       BRM
                9SETUPN
                                                                                 0296
       PZE
                2
                                                                                 0297
       PZE
                0
WUNIT
                                                                                 0298
       PZE
WFLAG
                0
                                                                                 0299
       LDA
                TIMUNET
                                                                                 0300
       STA
                WUNT
                              SEARCH SYMBOL TABLE
                                                                                 0301
       BRM
                ASGN
                                                                                 0302
       PZE
                1
                                                                                 0303
WUNT
       PZE
                0
                ARFDT
                                                                                 0304
                              FOT ADDRESS
       LDA
                              ; 9P CODE FOR ENDFILE
                                                                                 0305
       ADD
                =03100000
                **FLAG
                               FLAG
                                                                                 0306
       LDB
                                                                                 0307
                =C77777
       SKB
                                                                                 8060
       BRU
                $+2
                                                                                 0309
                =00200000
       ADD
                                                                                 0310
                WECAL
                               ;STERE OF CODE + FOT ADDRESS
       STA
                                                                                 0311
       3₹~
                RNIBPS
                                                                                 0312
       PZE
       PZE
                                                                                 0313
WECAL
                TEDT
                                                                                 0314
       SKN
                                                                                 0315
       BRU
                $+2
                                                                                 0316
                3-2
        BRU
                                                                                 0317
                WESF
       385
                                                                                 0318
       PAGE
                                                                                 0319
                                                                                 0320
       PZE
                9SETUPN
                                                                                 0321
        384
                                                                                 0322
       PZE
                                                                                 0323
RUNIT
       PZE
                                                                                 0324
       LDA
                *RUNIT
                                                                                 0325
        STA
                RUNT
                                                                                 0326
        BRM
                ASGN
                               39 SEARCH SYMPL TABLE
                                                                                 0327
       PZE
                                                                                 0358
RUNT
        PZE
                                                                                 0329
        LDA
                ARFDT
                               FOT ADDRESS
```

```
JOP CODE FOR REAIND
        ADD
                 =03200000
                               ISTORE IN CALLING SEQUENCE
       STA
                 RWCAL
       BRM
                 2/1905
       PZE
RACAL
       PZE
                 TEST
        SKN
       BRU
                 $+2
       BRU
                 $-2
       BRR
                 RWND
REW
        SPD
                 03200000
WRIT
        CPD
                 0400000
        PZE
SCLR
        STZ
                 RESFELAG
        MOR
                 CLR
        BRR
                 CLR
        CALL WIRTE (IFILE, IBUF
SWRITE PZE
                 Э
                 WRITE
        LDA
        STA
                 READD
                 READD+1
        BRU
        CALL READD (IFILE, ISUF, NASAD)
SREADD PZE
        384
                 9SETUPN
        PZE
                 3
        PZE
                 0
IFILE
        PZE
IBUF
                 0
NACRO
        PZE
        STX
                 SAVE,1
                 *IFILE
        LDA
                 =10
        SUB
        CSPY
                 (5,1)
                 FILE,1
        LDA
                 Lesk
        STA
        3RM
                 RIRSTS
        PZE
        PZE
                 LBAK
        SKU
                 RNZEP8
        BRU
                 NOFILE
        CSPY
                 (5,1)
        LCA
                 0.1
        CBDY
                 (5,1)
        LDA
                 2,1
        STA
                 SECT
        LDA
                 IBUF
        LDB
                 *NWBRD
        STD
                 305
                 READEP
        LDA
        LDB
                 MRITE
        SKE
                 =077777
```

0330

0331

0332

0334

0335

0336

0337

0338

0339 0340 0341

0342

0343

0344

0345

0346

0347

0349

0350

0351

0352

0353

0354

0356

0357

0358

0359

C36C

0361

0362

0363

0364

0365

0366

0367

0368

C369

0370

0371

0373

0374

0375

0376

0377

0378

0379

0380

0381

0382

0383

0384

```
0385
       BRU
                 $+2
                                                                                      0386
                 =040000C
       ADD
                                                                                      0387
       STZ
                 WRITE
                                                                                      0388
       STA
                 199P
                                                                                      0389
       BRM
                 RVIOPS
                                                                                      0390
       PZE
                 1
                                                                                       0391
1980
       PZE
                                                                                       0392
                 =C100000,1
       LDX
                                                                                       0393
       SKN
                 FDT
                                                                                       0394
       BRU
                 ERCK
                                                                                       0395
       BRX
                 $-2.1
                                                                                       0396
                 211
       LDA
                                                                                       0397
       STA
                 $+1
                                                                                       0398
       PZE
                                                                                       0399
       NAP
                                                                                       0400
                 FDT
ERCK
       LDA
                                                                                       0401
                 ERR9P
        SKA
                                                                                       0402
                 READER
        BRU
                                                                                       0403
       LOX
                 SAVE . 1
                                                                                       0404
        382
                 READD
                                                                                       0+05
                                                                                       0406
                 939
READER LOP
                                                                                       0407
                 PRINT
        BRU
                                                                                       C408
258
        PZE
                 4+2
                                                                                       0409
        PZE
                 5
                                                                                       0410
                 16, DISK IB ERROR
        TEXT
                                                                                       0411
                 060605252
        DATA
                                                                                       0412
                                                                                       0413
                 FER
NOFILE LOP
                                                                                       C414
                 PRINT
        BRU
                                                                                       0415
                 $+2
FER
        PZE
                                                                                       0416
        PZE
                                                                                       0417
                 16. FILE NOT FOUND
        TEXT
                                                                                       0418
                 060605252
        ATAC
                                                                                       0419
                                                                                       0420
                 ERBUE
        STD
PRINT
                                                                                       C421
                 RVIEPS
        BRY
                                                                                       0422
        PZE
                                                                                       0423
                 ERFOT
        WRIT
                                                                                       0424
                 ERFOT
        SKN
                                                                                       0425
                 READD
        SRR
                                                                                       0426
                 5-2
        ERU
                                                                                       0427
                                                                                       0428
                                                                                       0429
                                                                                       C43C
        PZE
FOT
                 C
                                                                                       0431
        PZE
                 0
BUF
                                                                                       0432
        PZE
                 0
                                                                                       0433
        PZE
                 03600
                                                                                       0434
        PZE
                 0
SECT
                                                                                       0435
                 RNSYST
        PZE
                                                                                       0436
        PZE
                                                                                       0437
                                                                                       J438
        TEXT
FILE
                 4,10
                                                                                       0439
                 4,11
        TEXT
```

TEXT 4,40 TEXT 4,41 TEXT 4,42 TEXT 4,43 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,46	TEXT 4,41 TEXT 4,41 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,45 TEXT 4,46 TEXT 4,47 TEXT 4,47 TEXT 4,47 TEXT 4,45 TEXT 4,52	TEXT 4,40 TEXT 4,41 TEXT 4,42 TEXT 4,43 TEXT 4,44 TEXT 4,44 TEXT 4,44 TEXT 4,46 TEXT 4,46 TEXT 4,47 TEXT 4,49 TEXT 4,49 TEXT 4,45 TEXT 4,50 TEXT 4,52	TEXXTT TEXXXT TEXXXT TEXXXT TEXXXT TEXXXT TEXXXT TEXXXXT TEXXXXXXXX	23 4 5 6 7 8 9 0 1 2 3 4 7
TEXT 4,42 TEXT 4,43 TEXT 4,44 TEXT 4,45 TEXT 4,46	TEXT 4,43 TEXT 4,44 TEXT 4,45 TEXT 4,46 TEXT 4,47 TEXT 4,47 TEXT 4,48 TEXT 4,49 TEXT 4,51 TEXT 4,52	TEXT 4,43 TEXT 4,44 TEXT 4,45 TEXT 4,45 TEXT 4,45 TEXT 4,45 TEXT 4,45 TEXT 4,51 TEXT 4,53 TEXT 4,55	TEXT TEXT TEXT TEXT	4,38 4,39 4,40 4,41
	TEXT 4,49 TEXT 4,50 TEXT 4,51 TEXT 4,52	TEXT 4,49 TEXT 4,50 TEXT 4,51 TEXT 4,52 TEXT 4,53 TEXT 4,54 TEXT 4,55 TEXT 4,55 TEXT 4,57 TEXT 4,58	TEXT TEXT TEXT TEXT TEXT	4,44 4,44 4,45 4,46 4,47

•	TEXT TEXT TEXT	4,67 4,68 4,69
Eeek •	PZE TEXT PZE	0 4,
ERROR SAVE READOP ERFDT ERBUF	DATA PZE	02000000 FDT 0 0 02600 0 RNC#NS

```
SUBROUTINE UPSET
                                                                               0001
                                                                               0002
 INTEGER PTR, CSPI
                                                                               0003
INTEGER XFCT, XCNT, SAMPTS
                                                                               0004
COMMON [P, LINE, NGRP, NPIG, NSL, ITIME, LFTIME, IRESO, LG(3),
* IHARM1, IHARM2, IWIDE, NFRAM, NSHUT, INTL, INTS, INTSL, INTLB, NPT,
                                                                               0005
* LAG, MDLAY, IEOF, LFT, N1, KILL, ITAPE, NBC, INITL, ICARD,
                                                                               0006
 MTAPE, ISWEEP, ISQRT, ISCL, IREP, CSPI, ISTUP(3),
                                                                               0007
* LP(3), LGRP, ISCP, LSPEC, NREC, NCTR, IPTR, LPTR, LSD, IDISPY,
                                                                               8000

    ISCAN, ISCAL, IFILE, IAB, JAB, IREWIND, STRT1, STRT2, STRT3,

                                                                               0009
 -HARM1,WINT,SINT,SLINT,WBINT,HARM2,SWINC,SWL,SWU,SINC,IFLAG,
                                                                               0010
* PTR, ICTR, ISHT, NOREC, ISTAR, TF, ISWI, ISWU, ISWL, IOPTN, NP
                                                                               0011
- ,knifty,nanaise,xfct,xcnt,lg10,lgnat,iDate(3),iSiTe,lgcnt,
                                                                               0012
* SAMPTS, ISFG
                                                                               0013
NONDISE = 0
                                                                               0014
                                                                               0015
LINE = 10
NGRP=NSL=LAG=N1=ITAPE=1
                                                                               0016
NPT = 150
                                                                               0017
 ISFG = 512
                                                                               0018
STRT1 = 3.5
                                                                               0019
STRT2 = C.
                                                                               0020
STRT3 = C.
                                                                               0021
HARM1 = HARM2 = 0.
                                                                               0022
LFT = 8192
                                                                               0023
 AINT = 0.5
                                                                               0024
                                                                               0025
SINT=SLINT=WOINT=1.0
 ISKIP = IFLAG = 0
                                                                               0026
NBC = 5
                                                                               0027
NSKIP = LSD = 0
                                                                               9200
 IWICE = 10
                                                                               0029
NP = 20
                                                                               0030
                                                                               0031
CSPI = KILL = ISWEEP = KNIFTY = 0
SWL = C+
                                                                               0032
SWU = 150.
                                                                               0033
SWINC = .5
                                                                               0034
 ISCL = 16
                                                                               0035
                                                                               0036
RETURN
                                                                               0037
END
```

```
0001
      SUBROUTINE ESP
                                                                                     0002
      ESP
                                                                                     E000
                                                                                     0004
      THIS IS A MODIFICATION OF THE BASIC ESP SO THAT THE INPUT
                                                                                     0005
      TRANSFORMS ARE DONE ON LINE
                                                                                     0006
                                                                                     0007
                                                                                     8000
                                                                                     0009
      INTEGER DTFILE, XFILE, CSPI, PTR, IAVFILE, KUREC, LREC, KREC
                                                                                     0010
      INTEGER XFCT, XCNT, SAMPTS
                                                                                     0011
      DIMENSIAN IDUM(20), IW(3), NULG(3), IKEEP(7)
                                                                                     0012
      DIMENSION LKDAT(1500), IVERB(300)
                                                                                     0013
      DIMENSION LDATA(150,10), IBUF(4096), IAV(4096)
                                                                                     0014
      COMMON IP, LINE, NGRP, NPIG, NSL, ITIME, LFTIME, IRESO, LG(3),
                                                                                     0015

    IHARM1, IHARM2, IWIDE, NFRAM, NSHUT, INTL, INTS, INTSL, INTLB, NPT,

     + LAG, MDLAY, IEOF, LFT, N1, KILL, ITAPE, NBC, INITL, ICARD,
                                                                                     0016
                                                                                     0017
     * MTAPE, ISHEEP, ISQRT, ISCL, IREP, CSPI, ISTUP(3),
     * LP(3), LGRP, ISCP, LSPEC, NREC, NCTR, IPTR, LPTR, LSO, IDISPY,
                                                                                     0018
     * ISCAN, ISCAL, IFILE, IAB, JAB, IREWIND, STRT1, STRT2, STRT3,
                                                                                     0019
                                                                                     0020
     + HARM1, WINT, SINT, SLINT, AGINT, HARM2, SWINC, SWL, SWU, SINC, IFLAG,
     * PTR, ICTR, ISHT, NOREC, ISTAR, IF, ISWI, ISWU, ISWL, ISPIN, NP
                                                                                     0021
     * , KNIFTY, NONDISE, XFCT, XCNT, LG10, LGNAT, IDATE(3), ISITE, LGCNT,
                                                                                     0022
     * SAMPTS, ISFG
                                                                                     0023
                                                                                     0024
                                                                                     0025
      EGUIVALENCE (LKDAT, LDATA)
                                                                                     0026
      EGUIVALENCE(IDATE, IKEEP)
                                                                                     0027
      EGUIVALENCE(IVERB, IBUF)
                                                                                     8500
      NAMELIST LINE, NGRP, NPT, NSL, IT, LAG, ISFG, STRT1, STRT2, STRT3, HARM1,
                                                                                     0029
     * WINT, SINT, SLINT, WOINT, NFRAM, NSHUT, MDLAY, IEOF, IDATE, SAMPTS,
                                                                                     0030
                                                                                     0031
     * ISITE, LGCNT,
                                                                                     0032
     C HARM2, LFT, N1, LREC, ITAPE, NBC, INITL, ICARD, NSKIP, IMIDE, MTAPE
      NAMELIST SWINC, ISWEEP, SWL, SWU, ISGRT, SINC, ISCL, ISKIP, IREP
                                                                                     0033
      NAMELIST IREWIND, CSPI, LSD, KNIFTY, NONGISE, LG10, LGNAT
                                                                                     0034
      DATA DTFILE/45/, IAVFILE/46/, KUREC/4096/, XFILE/10/, LREC/1024/,
                                                                                     0035
                                                                                     0036
     * KREC/2048/JIVTAPE/2/
                                                                                     0037
C
                                                                                     3800
      ISW(I)=LAND(IW(1),LLS(1,24-I))
                                                                                     0039
      JSW(I)=LAND(IW(2);LLS(1:24=I))
                                                                                     0040
C
                                                                                     0041
C
                                                                                     0042
C
   KEYBOARD INPUT
                                                                                     0043
C
                                                                                     0044
      G8 T8 (10,20,120) ISTAR
                                                                                     0045
      INITL=1
                                                                                     0046
       BUTPUT(102) 'CATA INPUT'
                                                                                     0047
       INPUT(101)
                                                                                     0048
       IF(KNIFTY .EG. 1) ISTAR = 2; RETURN
20
                                                                                     0049
       IF(ICARD *EG* 1) INPUT(5)
                                                                                     3050
       TCARD#0
                                                                                     0051
       IF(INITL .EQ.O) GS TS 100
                                                                                     3052
                                                                                     0053
   INITIALIZATION
                                                                                     0054
```

```
3C
      CALL PRESET
                                                                                   0055
                                                                                   0056
C
C
                                                                                   0057
C
   INITIATE AST DISPLAY
                                                                                   0058
                                                                                   0059
                                                                                   0060
      CALL CORMOV(IP, NP, IDUM)
      CALL SEND(3, IDUM, NP)
                                                                                   0061 i
                                                                                   0062
                                                                                   0063
C
   N1 INTEGRATION
                                                                                   0064
                                                                                   0065
      XFCT = 0
      De 110 I=1,LSPEC
                                                                                   0066
100
                                                                                   0067
110
      IAV(I)=C
                                                                                   0068
C .
                                                                                   0069
      DS 150 [AB = 1,N1
                                                                                   007C
      D9 150 JAB # 1, NREC
                                                                                   0071
      ISTAR = 3
                                                                                   0072
      IF(XFCT +NE+ 0) G8 T9 120
                                                                                   0073
      CALL DEATH
                                                                                   0074
      RETURN
120
      CALL BIRTH
                                                                                   J375
                                                                                   €07£
129
      IF(IFLAG .EG. 777) G8 T8 300
130
      NE6F=0
                                                                                   0078
      N = (JA9 - 1) + LREC
                                                                                   0079
      D9 140 K=1.LREC
                                                                                   0080
140
      IAV(N+K)=IAV(N+K)+IBUF(<)/N1
                                                                                   0081
150
      CONTINUE
                                                                                   2800
C
                                                                                   0083
      NFT=NFT+N1
                                                                                   0084
                                                                                   0085
   UPDATE BEX CAR
C
                                                                                   0086
                                                                                   0087
      IFILE = IPTR + 30
      CALL WRITE(IFILE, IAV, LSPEC)
                                                                                   0088
                                                                                   0089
      IPTR = MOD(IPTR+1,NBC)
                                                                                   0090
   SIDE LINE DISPLAY SPTISH
                                                                                   0091
                                                                                   0092
                                                                                   0093
      IF(LSD.EG.C) G8 T8 160
      De 155 I=1.NGRP
                                                                                   0094
      M=1 P(1)
                                                                                   0095
      N=(I=1)+NPIG
                                                                                   0096
                                                                                   0097
      D8 155 J=1, NPIG
      ITEMP=IAV(M+J)/ISCL
                                                                                   0098
                                                                                   0099
      CALL ADJUST
                                                                                   0100
155
      IAV(N+J) #ITEMP
      CALL SEND(5, IAV, NPT)
                                                                                   0101
                                                                                   0102
160
                                                                                   0103
      NCTR=NCTR+1
                                                                                   0104
      IF(NCTR+LT+NBC)G8 T8 100
                                                                                   0105
   BOX CAR AVERAGING
                                                                                   0106
                                                                                   0107
                                                                                   0108
500
      DB 205 I=1.LSPEC
205
                                                                                   0109
      IAV(I)=C
```

```
IF (ISWEEP . EG . O) G8 T9 220
                                                                                      0110
C
                                                                                      0111
      D8 210 I=1.NBC
                                                                                      0112
       IFILE = 1 + 29
                                                                                      0113
      CALL READD(IFILE, IBUF, LSPEC)
                                                                                      0114
C
                                                                                      0115
      De 210 J=1.LSPEC
                                                                                      0116
210
      IAV(J)=IAV(J)+IBUF(J)/NBC
                                                                                      0117
C
                                                                                      0118
      IFILE = LPTR + 35
                                                                                      0119
      CALL WRITE(IFILE, IAV, LSPEC)
                                                                                      0120
      G9 T9 240
                                                                                      0121
                                                                                      0122
220
      DB 230 1=1.NBC
                                                                                      0123
      IFILE = 1 + 29
                                                                                      0124
      CALL READD(IFILE, IBUF, LSPEC)
                                                                                      0125
      D9 230 J=1,NGRP
                                                                                      0126
      N=LP(J)
                                                                                      0127
      D8 230 K=1.NPIG
                                                                                      0128
      M=(J-1) +NPIG
                                                                                      0129
530
      IAV(M+K)=IAV(M+K)+IBUF(N+K)/NBC
                                                                                      0130
C
                                                                                      0131
  UPDATE DISPLAY DATA
C
                                                                                      0132
C
                                                                                      0133
240
      D9 250 1=1,NGRP
                                                                                      0134
      N=(I=1)*NPIG
                                                                                      0135
      MaLP(I)
                                                                                      0136
C
                                                                                      0137
      D8 250 J=1. NPIG
                                                                                      0138
      ITEMP=IAV(M+J)/ISCL
                                                                                      0139
      CALL ADJUST
                                                                                      0140
250
      LDATA(N+J,LPTR+1)=ITEMP
                                                                                      0141
      CALL SEND(6, LDATA(1, LPTR+1), NPT)
                                                                                      0142
      LPTR = MOD(LPTR+1,LINE)
                                                                                      0143
C
                                                                                      0144
Ċ
                                                                                      0145
Ċ
                                                                                      0146
260
      CALL CORMOV(ISTUP, 3, IW)
                                                                                      0147
      CALL SEND(1, IW, 1)
                                                                                      0148
      IW(2)=LXBR(IW(1),IW(3))
                                                                                      0149
      IW(3) = I \times (1)
                                                                                      0150
      CALL CORMOV([W.3, ISTUP)
                                                                                      0151
      IF(ISW(1) • NE • C) G8 T9 280
                                                                                      2152
       IF(JSW(2) . NE . C) LSD = MOD(LSD + 1, 2); CALL SEND(4, 0, 0)
                                                                                      0153
       IF(ISW(3).NE.O)CALL SEND(7,0,0)
                                                                                      0154
       IF(JSW(4) • NE • C) IDISPY = MOD(IDISPY+1,2)
                                                                                      0155
       IF(ISW(5) . NE . O) CALL SEND(168,0,0)
                                                                                      0156
       IF(JSW(6) . NE . O) CALL SEND(15B, 0, 0)
                                                                                      0157
       IF(JSW(7) • NE • 0) CALL SEND(148,0,0)
                                                                                      0158
       ISCAL=0
                                                                                      0159
       IF(ISW(8) . NE . O) ISCAL = 1; CALL SCALE
                                                                                      0160
       ISCAN=0
                                                                                      0161
      IF(ISW(9) . NE . O) ISCAN=1; CALL SCAN
                                                                                      0162
      IF(ISW(11) .NE .O)CALL SCAN
                                                                                      0163
       IF(ISW(13) .NE. 0) CALL VERSA
                                                                                      0164
```

```
IF(ISW(18) • NE • 0) MDLAY = MDLAY; CALL DELAY; CALL SEND(11B, 0, 0)
                                                                                   0165
      IF(ISW(19) • NE • 0) CALL INPUT; CALL SETI; CALL SEND(3, IDUM, NP)
                                                                                   0166
      IF(NGRP.EG.LGRP)G8 T8 270
                                                                                   0167
                                                                                   0168
      CALL REGRP
      LGRP=NGPP
                                                                                   0169
27C
                                                                                   0170
      IHOLD=ISCAN+ISCAL+IDISPY
                                                                                   0171
      IF ( IHOLD . NE . 0 ) GO TO 260
      IF (NESF . NE . D) GB TB 260
                                                                                   0172
                                                                                   0173
      IF(SENSESWITCH 6)280,100
                                                                                   0174
280
      CALL SEND(0,0,0)
                                                                                   0175
      IF(ISW(14) •NE• 0) CALL WEBF(IVTAPE,1)
      CALL INPUT
                                                                                   0176
                                                                                   0177
      CALL SETI
                                                                                   0178
      IF (IREWIND .EG, O) CALL RWND(ITAPE)
      IF(IREWIND .EG. 1) CALL BAKREC(ITAPE, NOREC); CALL FORSCN(ITAPE, 1)
                                                                                   0179
      GET PAST END OF FILE MARK SEPARATING TIME SEGUENCES
                                                                                   0180
      GET PAST END OF FILE MARK SEPARATING TIME SEQUENCES
                                                                                   0181
      IF(IREP.EQ.1) IREP=0;G8 T9 30
                                                                                   0182
                                                                                   0183
      IF(IEOF.NE.O)ICARD=1
                                                                                   0184
      INITL=1
      IF (ICARD . EG. 1) G8 T8 20
                                                                                   0185
      KILL = 1
                                                                                   0186
      ISTAR = 1
                                                                                   0187
      RETURN
                                                                                   0188
300
      NESF=NESF+1
                                                                                   C189
      CALL CLRESF
                                                                                   0190
                                                                                   0191
      GB TB 260
                                                                                   0192
C
                                                                                   0193
C
Ċ
                                                                                   0194
                                                                                   0195
      SUBROUTINE PRESET
                                                                                   0196
      CALL BININ(ITAPE, IBUF, LREC, IND)
      NOREC = IBUF(1)
                                                                                   0197
      09 31 1 = 1,7
                                                                                   0198
                                                                                   0199
      IKEEP(I) = IBUF(2+I)
31
                                                                                   0200
      LGCNT . C
30
                                                                                   0201
      INITL=0
                                                                                   0505
      LGRP=NGRP
                                                                                   ECS0
      ISCP=ISCL
      CALL SETI
                                                                                   0204
      LSPEC=LFT/2
                                                                                   0205
      XCNT = LREC/LSPEC
                                                                                   0206
      NREC=LSPEC/LREC
                                                                                   0207
      IF(NREC +LE+ C) NREC = 1
                                                                                   8050
      ITIME = IQUF(12)+60*(IBUF(11)+60*IBUF(10))
                                                                                   0209
      NCTR=IPTR=LPTR-0
                                                                                   0210
      LSD=0
                                                                                   0211
      IDISPY=ISCAN=ISCAL=0
                                                                                   0212
      IW(1) = IW(2) = IW(3) = 0
                                                                                   0213
      09 33 [=1.LSPEC
                                                                                   0214
      IBUF(I)=0
                                                                                   0215
33
                                                                                   0216
      D8 34 I=1,LINE
      IFILE # I + 34
                                                                                   0217
      CALL WRITE(IFILE, IBUF, LSPEC)
34
                                                                                   0218
      08 35 1=1/LINE
                                                                                   0219
```

```
D9 35 J=1,NPT
                                                                                   0220
35
       LDATA(J,I)=0
                                                                                   0221
       PTR = 1
                                                                                   0222
       IFLAG = 0
                                                                                   0223
       ISHT = 0
                                                                                   0224
       RETURN
                                                                                   0225
                                                                                   0226
                                                                                   0227
                                                                                   0228
       SUBROUTINE BIRTH
                                                                                   0229
       IF(XFCT .NE. 0) G8 T8 25
                                                                                   0230
       CALL READD(IAVFILE, IAV, KUREC)
                                                                                   0231
       CALL READD(DTFILE, 13UF, KUREC)
                                                                                   0232
       D8 20 IV = 1,1500
                                                                                   0233
20
       LKDAT(IV) = IBUF(500+IV)
                                                                                   0234
25
       IF(CSPI +EQ+ 0) G8 T8 30
                                                                                   0235
       XFILE = 47
                                                                                   0236
       CALL READD(XFILE, IBUF, KUREC)
                                                                                   0237
       LGCNT = LGCNT + 1
                                                                                   0238
       RETURN
                                                                                   0239
       CALL READD(XFILE, IBJF, KREC)
30
                                                                                   0240
      LGCNT = LGCNT + 1
                                                                                   0241
       MA = XFCT * LSPEC
                                                                                   0242
       DS 40 IV = 1.LSPEC
                                                                                   0243
40
       IBUF(IV) = IBUF(MA+IV)
                                                                                   0244
       XFCT = MBD(XFCT+1,XCNT)
                                                                                   0245
       IF(LGCNT .GE. (SAMPTS-LFT)/LAG) IFLAG = 777
                                                                                   0246
                                                                                   0247
                                                                                   0248
                                                                                   0249
                                                                                   0250
      SUBREUTINE DEATH
                                                                                   0251
      DS 10 IV = 1,1500
                                                                                   0252
      IBUF(50C+IV) = LKDAT(IV)
10
                                                                                   0253
      CALL WRITE(DIFILE, IBUF, KUREC)
                                                                                   0254
      CALL WRITE(IAVFILE, IAV, KUREC)
                                                                                   0255
      RETURN
                                                                                   0256
                                                                                   0257
                                                                                   0258
                                                                                   0259
                                                                                   0260
                                                                                   0261
                                                                                   0565
                                                                                   0263
      SUBROUTINE SCAN
                                                                                   0264
       IF (ISWEEP . EQ. 0) RETURN
                                                                                   0265
      ISGN=0
                                                                                   0266
       IF(ISA(10) + NE + 0) ISGN = +1
                                                                                   0267
      D8 10 I=1,NGRP
                                                                                   0268
      LP(!)=LP(!)+ISIGN(ISWI,ISGN)
                                                                                   0269
      IF(I+NE+1)G8 T9 10
                                                                                   0270
      IF(LP(I) *LT * ISWL)LP(I) *LP(I) *ISIGN(ISWI, ISGN); RETURN
                                                                                   0271
      IF(LP(I).3T.ISWU)LP(I)=LP(I)-ISIGN(ISWI,ISGN); RETURN
                                                                                  0272
      CONTINUE
10
                                                                                  0273
      D8 20 I=1.NGRP
                                                                                   0274
```

```
LG(I)=LG(I)+ISIGN(ISWI, ISGN)
      IF(NGRP.EQ.1)LP(3)=LP(2)=LP(1);LG(3)=LG(2)=LG(1)
      CALL RECON
      CALL CORMOV(LG, 3, NULG)
      CALL SEND(13B, NULG, 3)
      CALL CORMOV(NULG, 3, LG)
      IF (LSD . NE . 0) CALL SIDE
      RETURN
C
C
      SUBROUTINE RECON
      N=LPTR+1
      IF(N.LT.O)N=LINE-1
      DS 20 I=1.LINE
      IFILE = N + 35
      CALL READD(IFILE, IBUF, LSPEC)
      D8 15 J=1.NGRP
      L=(J=1) + NPIG
      M=LP(J)
      D8 15 K=1, NPIG
      ITEMP=IBUF(M+K)/ISCL
      CALL ADJUST
      LDATA(L+K,N+1)=ITEMP
15
      CALL SEND(12B, LDATA(1,N+1),NPT)
      N=N=1
      IF(N.LT.C)N=LINE+1
20
      CONTINUE
      RETURN
C
      SUBROUTINE SIDE
      N=IPTR-1
      IF(N+LT+0)N=NBC-1
      IFILE = N + 30
      CALL READD(IFILE, IBUF, LSPEC)
      D8 25 I=1,NGRP
      L=(I-1)*\PIG
      MaLP(I)
      DA 25 J=1, NPIG
      ITEMP=IBUF (M+J)/ISCL
      CALL ADJUST
      IAV(L+J)=ITEMP
25
      CALL SEND(5, IAV, NPT)
      RETURN
C
C
C
      SUBROUTINE REGRP
      CALL SEND(178,0,0)
      CALL RECON
      IF(LSD. LE. 0) CALL SIDE
      RETURN
C
```

027*t* 027

027

0271

0284

028

0281

0284

028

028:

028

0289

0290

029:

0598

029:

0294

0295

029t

0298

0299

0300

030:

0304

0301 0304

0306

0301

0309

0310

0311 0311 0313

0314

0315

0316

0317

0323

0324

035

0327

0328

C		033 033
С	SUBROUTINE SET!	033
	TF = LFT/ISFQ	033
	IRESE=TF	033
	NFTIME = LAG/ISFG	033
	LFTIME=NFTIME+N1	033 [,]
	NPIG=NPT/NGRP	033
	LP(1)=STRT1*TF=NPIG/2	033
	LP(2) = (STRT2+HARM1*STRT1) *TF+NPIG/2	033
	LP(3)=(STRT3+HARM2*STRT1)*TF=NPIG/2	034
	De 10 1 = 1,3	034
	IF(LP(I) +LE+ 0) LP(I) = 1	034
1 C	LG(I) = LP(I) = (I-1)*NPIG.	0341
	<pre>!F(NGRP*EG*1)LP(3)=LP(2)=LP(1);LG(3)=LG(2)=LG(1)</pre>	034
	IHARM1=2++9+HARM1	034
	[HARM2*2**9*HARM2	034
	IP*SINC*TF	034
	ISWI=SWINC+TF	034
	ISWU=SWU+TF	034:
	[SWL=SWL+TF	0351
	INTL=WINT+8192	035 035
	INTS=SINT+8192	035:
	INTSL*SLINT*8192	035.
	INTLE=WSINT *8192	035
	IF(ISCL.EQ.ISCP)38 TB 30	035:
	CALL RECON	035
	IF(LSD.NE.0)CALL SIDE	035.
2.0	ISCP=ISCL	035
30	CALL CORMOV(IP,NP,IDUM)	0360
_	RETURN	0361
*		036:
כ		0360
C	SUBREUTINE SCALE	036-
	CALL SEAD(108,10PTN,1)	0365
	IF(ICPTN.LT.O)RETURN	036:
	N=LPTR+1	0361
	IF(N.LT.O)N=LINE+1	036
	09 10 I=1,LINE	036:
	CALL SEND(108, LDATA(1, N+1), NPT)	0370
	N=N=1	0371
	IF(N+LT+O) N=LINE=1	0372
10	CANTINUE	0370
	IF(LSD.NE.O)CALL SIDE	037/
	RETURN	0375
•		037:
*		037
•	SUBROUTINE TO DUMP DISPLAY ON TAPE	037
*		0371
	SUBROUTINE VERSA	0380
*		038,
•	DESCRIPTION OF HEADER RECORD	0383
*	1 NUMBER OF POINTS	038. 038.
	TO A DESCRIPTION OF THE PARTY O	

```
X INCREMENT
                                                                                     038
            Y INCREMENT
                                                                                     038
            CURRENT LINE POINTER
                                                                                     038
            NUMBER OF SPOTLIGHTS
                                                                                     380
            CENTER OF SPOTLIGHT 1
                                                                                     038
            CENTER OF SPOTLIGHT 2
                                                                                     039
            CENTER OF SPOTLIGHT 3
      9
                                                                                     039
      10
            TIME HOURS
                                                                                     039
            TIME MINUTES
      11
                                                                                     039.
      12
            TIME SECONDS
                                                                                     039.
      13
            FFT LENGTH
                                                                                     039:
            FFT LAG
      14
                                                                                     039
            SAMPLING RATE
      15
                                                                                     039
      16
            SITE IDENTIFICATION
                                                                                     039
            SITE IDENTIFICATION SITE IDENTIFICATION
      17
                                                                                     039
      18
                                                                                     04C
            LEAD PRINT
      19
                                                                                     040
      SC
            SCALE
                                                                                     040
            MANTH
      21
                                                                                     040
      22
            DAY
                                                                                     040.
            YEAR
      53
                                                                                     0405
                                                                                     040:
      DB 10 IV = 1,300
                                                                                     040
      IVERS(IV) = 0
                                                                                     040
      CALL SEND(20B, IVERB, NPT+2)
                                                                                     0401
      IF(ISW(15) •NE• 0) IVERP(6) = -1
                                                                                     041
                                                                                     041
      FUNCTION SWITCH 15 - NO SPOTLIGHT FOR HARDCOPY OUTPUT
                                                                                     0411
                                                                                     041.
      IVERB(12) = ITIME + (LGCNT*LAG)/ISF3
                                                                                     041-
      IVER8(10) = [VERB(12) / 3600
                                                                                     0415
      IVERB(11) = (IVERB(12) - IVERB(10) + 3600)/60
                                                                                     0416
      IVERB(12) = IVERB(12) - 60*(IVERB(11) + 50*IVERB(10))
                                                                                     041
      IVERS(13) = LFT
                                                                                     041:
      IVERB(14) = LAG
                                                                                     0415
      IVERB(15) = ISFQ
                                                                                     042.
      CALL IDFIX(ISITE, USITE)
                                                                                     342
      IVERB(16) = USITE
                                                                                     0422
      IVERB(17) = IVERB(18) = 0
                                                                                     0420
      IVER8(19) = LP(1)
                                                                                     0424
      IVERB(20) * ISCL
                                                                                     2425
      IVERB(21) = IDATE(1)
                                                                                     042:
      IVERB(23) = IDATE(2)
                                                                                     3427
      IVER8(23) = IDATE(3)
                                                                                     0422
      CALL BINBUT(IVTAPE, IVERS, NPT+2, IND)
                                                                                     0425
      D9 40 IV = 1, LINE
                                                                                     0430
      CALL SEND(208, IVERB, NPT+2)
CALL BINGUT(IVTAPE, IVERB, NPT+2, IND)
                                                                                     043:
                                                                                     0437
      CONTINUE
40
                                                                                     0430
      RETURN
                                                                                     043-
                                                                                     0435
                                                                                     043:
                                                                                     0437
      SUBREUTINE ADJUST
                                                                                     043.
                                                                                     0435
```

		075	0	000.
*	SIRCIE			0502
		BRM	9SE TUPN	0003
		PZE	2	C00~
	SITE	PZE	0	0005
	SITZ	PZE	0	000€
		LDA	*SITE	0007
		LRSA	014	3000
		STA	*SIT2	~ 000F
		BRR	IDFIX	0013
		END		

SCORMO	V PZE	Ĵ
	BRM	9SETUPN
	PZE	3
CIP	PZE	0
CNP	PZE	Э
CIDUM	PZE	0
	STZ	CTR
Lage	LDA	*CIP
_	STA	*CIDUM
	LDA	CIP
	ADD	=01
	STA	CIP
	LDA	CIDUM
	ADD	=01
	STA	CIDUM
	LDA	CTR
	ADD	=C1
	STA	CTR
	SKE	*CNP
	∃RU	L89P
	3R9	Caryev
こ でマ	PZE	С
	END	

000:
0007 0001
0007 0007 0005
000.
0007
0007 0007 0007 0017 0011
0011
0012 0017 0014
0014 0015
001r
001: 0017 0015 0015 0020 0021 0021
001° 002°
002:
0021

```
000:
                                                                                   0002
                                                                                   0001
                                                                                   0004
$CLRESF PZE
                                                                                   0005
                8E8FFLAG
       STZ
                                                                                   000c
                CLRESF
       MPS
                                                                                   0007
      BRR
                CLRECF
                                                                                   3000
                                                                                   0009
                                                                                   0010
                                                                                   0011
   SUBROUTINE TO SEND MESSAGE TO AGT
                                                                                   0012
                                                                                   0013
       PZE
SEND
                0
                9SETUPN
       3R*
       PZE
                0
NCODE
       PZE
NAUF
       PZE
                0
       PZE
                0
CAZ
                                  GET CODE
       LDA
                +NC8DE
                15
                                  PACK BUFFER ADDRESS
       LLSA
                TEMP
       STA
                NBUF
       LDA
        ETR
                2077777
                TEMP
        ADD
                                  GET WORD COUNT
        LD5
                *NWD
                15
        LLSB
                Swe
                                  SEND MESSAGE
        STD
                                  SEND INTERRUPT
                032020
        EgM
                                  WAIT FOR ACCESS
        SKN
                S.9
                $-1
        BRU
                SEND
        BRR
TEMP
        PZE
                 04000000
ACCESS DATA
                 377774
        EGU
SAI
                 077776
S.49
        EGU
   SUBROUTINE FOR GRAPHIC INPUT
SINPUT PZE
                 INPADR
                                  GET 9INPUT BUFFER
        LOA
                 BUF
        ADD
                 IBUF
        STA
                                  GET PATCH ADDRESS
                 INPADR
        LDA
                 READ
        ADD
                 PATCH
        STA
                                  PATCH 91NPUT TO RECEIVE CHARACTERS
                 BRM
        LDA
                 *PATCH
        XMA
                 3R*
        STA
                                   INPUT STRING
 INPADR BRM
                 PINPUT
                                   RESTORE PATCH
                 3R4
        LDA
                 *PATCH
        XMA
                 aR4
        STA
        MPA
                 INPUT
                 INPUT
        3RR
```

0015

001£

0017

0018

0015

0020

0021

0022

0023

0024

0025

002E

0027

3500

0025

0030

0031

0032

0033

0034

0035

0036 0037

3600 0039

0040

0041

0042

0043

9344

0045

0046

0047

0048

0049

0050

0051

0052

0053

0054

BRM INP	BRM PZE	INP
I9UF	BRM PZE PZE PZE PZE PZE PZE PRB SRR	SENO 3 *2 0 *5 INP INP
* BUF READ PATCH	DATA DATA PZE END	0773 0563 0

```
THIS PROGRAM FEEDS TRANSFORMS WITH A MAXIMUM LENGTH OF 1024
                                                                            0001
PRINTS TO THE CALLING PROGRAM. IT IS DESIGNED FOR ON-LINE
                                                                            0005
DISPLAYS, THE TRANSFORMS ARE NOT SAVED.
                                                                            0003
                                                                            0004
                                                                            0005
                                                                            9006
                                                                            0007
 SUBROUTINE XFORM
                                                                            9008
                                                                            0009
 INTEGER RECNTR
                                                                            001C
 INTEGER SYFILE, XFILE, DTFILE, PTR, COSFILE, CSPI, KREC, LREC
                                                                            0011
 INTEGER XFCT, XCNT, SAMPTS
                                                                            0012
                                                                            0013
                                                                            0014
COMMON IP/LINE/NGRP/NPIG/NSL/ITIME/LFTIME/IRESO/LG(3)/
                                                                            0015

    THARM1, THARM2, TWIDE, NERAM, NSHUT, INTL, INTS, INTSL, INTLB, NPT,

                                                                            0016
* LAS, MOLAY, IEBF, LFT, N1, KILL, ITAPE, NBC, INITL, ICARD,
                                                                            0017
* MTAPE, IS VEEP, ISQRT, ISCL, IREP, CSPI, ISTUP(3),
                                                                            0018
* LP(3),LGRP,ISCP,LSPEC, NREC, NCTR, IPTR, LPTR, LSO, IDISPY,
                                                                            0019
                                                                            0020
* ISCAN, ISCAL, IFILE, IAB, JAB, IREWIND, STRT1, STRT2, STRT3,
+ HARM1, HINT, SINT, SLINT, ABINT, HARM2, SWINC, SWL, SWU, SINC, IFLAG,
                                                                            0021
* PTR, ICTR, ISHT, NOREC, ISTAR, TF, ISWI, ISWU, ISWL, ISPTN, NP
                                                                            0022
* ,KNIFTY,N9N0ISE,XFCT,XCNT,LG10,L3NAT,IDATE(3),ISITE,LGCNT,
                                                                            0023
* SAMPTS, ISF3
                                                                            0024
                                                                            0025
 DIMENSION NOUF (1024)
                                                                            0026
 DIMENSIAN IBUF(2048), KBUF(1024), WTAB(1024), FBUF(2,1024)
                                                                            0027
                                                                            8500
                                                                            9329
DATA SVFILE/20/,PI/3.1415926535/,C9SFILE/21/,XFILE/10/,KREC/2049/
* JLREC/1024/JN8SFILE/11/
                                                                            0030
                                                                            0031
                                                                            0032
                                                                            0033
 SF = 2 \cdot C * * 23
                                                                            0034
 IF(IFLAS +EG+ 1) G8 T8 15
                                                                            0035
                                                                            0036
 TRANSFER PARAMETER INFORMATION IN FILE 10 TO XFORM
                                                                            0037
                                                                            3038
                                                                            0039
 NOREC IS THE NUMBER OF 1024 RECORDS OF SEISMIC DATA
                                                                            0040
 NFT IS THE LENGTH OF THE TRANSFORM, IN POINTS
                                                                            0041
 LAG IS THE SEPARATION, IN POINTS, BETWEEN TRANSFORMS
                                                                            0042
 IPUT IS 1 FOR DRUM INPUT; O FOR TAPE INPUT
                                                                            0043
 PTR INITIALLY 1, INDICATED WHICH HALF OF DRUM RECORD SHOULD BE
                                                                            0044
   PUT INTO THE PRE-TRANSFORM BUFFER
                                                                            0045
 IFLAG INDICATES WHETHER THE INITIAL RECORD HAS BEEN READ IN IF 1,
                                                                            0046
   IF 777 INDICATES END OF FILE AND/OR END OF SEISMIC RECORD
                                                                            0047
 ISHT KEEPS TRACK OF THE LEAD POINT OF THE TRANSFORM WITHIN THE
                                                                            C048
 CURRENT SEISMIC RECORD
                                                                            0049
 IFILE IS THE FILE OF THE INPUT DATA IF THE DRUM IS BEING USED
                                                                            0050
                                                                            2051
                                                                            0052
 COMPUTE THE COSINE TABLE
                                                                            0053
```

```
THETA = 0
                                                                                     0055
      DTHETA = 2+PI/LFT
                                                                                     0056
      De 20 1 = 1,LFT
                                                                                     0057
      WTAB(I) = (1-CBS(THETA))/2.0
                                                                                     0058
   20 THETA * THETA + DTHETA
                                                                                     0059
      CALL WRITE (COSFILE, ATAB, LFT+2)
                                                                                     0060
      D8 25 1 = 1,1024
                                                                                     0061
      KBUF(I) = 0
25
                                                                                     2900
      CALL WRITE(NOSFILE, KBUF, LREC)
                                                                                     0063
                                                                                     0064
                                                                                     0065
15
      CALL READD (COSFILE, ATAB, LFT+2)
                                                                                     0066
      LAST = C
                                                                                     0067
      IREC . C
                                                                                     0068
      NXSHT = LREC/LAG
                                                                                     0069
      NXREC = LFT/LREC
                                                                                     0070
      NTX = LREC/(LFT/2)
                                                                                     0071
      IF(NXREC +LT+ 1) NXREC = 1
                                                                                     0072
                                                                                     0073
                                                                                     0074
      READ IN DATA
                                                                                     0075
                                                                                     0076
      IF ((IFLAG .EG. 0) .AND. (NONDISE .NE. 0))39 TO 180
                                                                                     0077
      IF(IFLAG .EQ. 1) 68 T8 45
                                                                                     0078
28
      D9 30 I = 1, NXREC + 1
                                                                                     0079
      L = (I-1)*LREC + 1
                                                                                     0080
      CALL BININ(1, IBUF(L), LREC, IND)
                                                                                     0081
   30 CONTINUE
                                                                                     0082
      CALL WRITE(SVFILE, ISUF, KREC)
                                                                                     0083
   45 CALL READD(SVFILE, IBUF, KREC)
                                                                                     QC84
                                                                                     0085
      PREPARE PRE-TRANSFORM BUFFER, TO TO TRANSFORM
                                                                                     0086
                                                                                     0087
      D8 48 I = 1, LREC
                                                                                     0088
      KBUF(I) = 0
43
                                                                                     0089
      D8 150 N = 1,NTX
                                                                                     0090
   50 IRP = LAG+ISHT
                                                                                     0091
      D8 60 I = 1,LFT
                                                                                     0092
      FBUF(1,1) = IBUF(IRP + I)*WTA3(1)/2.0**23
                                                                                    0093
   60 FBUF(2,1) = 0.0
                                                                                     0094
      CALL FOURS(FBUF, LFT, 1, -1)
                                                                                     0095
      CALL READD (NOSFILE, NBUF, LREC)
                                                                                     0096
      LA = (N-1)+LFT/2
                                                                                     0097
      DB 80 1 = 1,LFT/2
                                                                                    0098
      \mathsf{KBUF}(\mathsf{LA+I}) = (\mathsf{SGRT}(\mathsf{FBUF}(1,I)**2 + \mathsf{FBUF}(2,I)**2)*\mathsf{SF}) - \mathsf{NBUF}(I)
                                                                                     0099
      IF(KBUF(LA+I) *LT* 0) KBUF(LA+I) = 0
                                                                                    0100
      CENTINUE
80
                                                                                    0101
                                                                                    0102
      IF(LGCNT + N .GE. (SAMPTS-LFT)/LAG) G9 T9 170
                                                                                    0103
      TAKE CARE OF BOOKKEEPING
                                                                                    0104
                                                                                    0105
      ISHT = MOD(ISHT+1,NXSHT)
                                                                                    0106
      IF ( ISHT .NE. 0) GB TB 150
                                                                                    0107
                                                                                    0108
      DO NOT NEED MORE DATA YET
                                                                                    0109
```

```
011C
      D8 90 I = 1, LREC
                                                                                  0111
   90 IBUF(I) = IBUF(I + LREC)
                                                                                  0112
      CALL BININ(1, IBUF(LREC+1), LREC, IND)
                                                                                  0113
                                                                                  0114
      STORE PRE-TRANSFORM BUFFER
                                                                                  0115
                                                                                  0116
      CALL WRITE(SVFILE, IBUF, KREC)
                                                                                  0117
150
      CONTINUE
                                                                                  0118
151
      IFLAG = 1
                                                                                  0119
      G9 T8 170
                                                                                  0120
                                                                                  0121
      ALL INPUT DATA HAS BEEN EXHAUSTED
                                                                                  0122
                                                                                  0123
170
      CALL WRITE(XFILE, KBUF, LREC)
                                                                                  0124
      RETURN
                                                                                  0125
                                                                                  0126
.
                                                                                  0127
                                                                                  0128
180
      RECNTR = 2
                                                                                  0129
      LA . 0
                                                                                  0130
      IF NONDISE IS SET EQUAL TO 1000, THE PROGRAM DEFAULTS TO THE
                                                                                  0131
      CASE IN WHICH THE AVERAGE NOISE IS FOUND FROM THE ENTIRE SET OF
                                                                                  0132
      TRANSFORMS
                                                                                  0133
      IF (Neweise .eg. 1000) Neweise = (SAMPTS-LFT)/LAG
                                                                                  0134
                                                                                  0135
      D8 181 I = 1, NXREC + 1
      L = (I-1)*LREC + 1
                                                                                  0136
      CALL BIMIN(1, IBUF(L), LREC, IND)
                                                                                  0137
181
      CALL WRITE(SVFILE, IBUF, KREC)
                                                                                  0138
                                                                                  0139
      D9 182 | = 1, LREC
      KBUF(I) = 0
182
                                                                                  0140
183
      IRP = LAG*ISHT
                                                                                  0141
      C9 184 I = 1, LFT
                                                                                  0142
                                                                                  0143
      FBUF(1,1) = IBUF(IRP+1)*WTAB(1)/2.0**23
      FBUF(2,1)=0.0
184
                                                                                  0144
                                                                                  0145
      CALL FOUR2(FBUF, LFT, 1, -1)
      De 185 [ = 1,LFT/2
                                                                                  0146
185
      KBUF(I) = (SirT(FBUF(1,I)**2*FBUF(2,I)**2)*SF/NONDISE) + KBUF(I)
                                                                                  0147
      LA = LA + 1
                                                                                  0148
                                                                                  0149
      IF(LA +EG+ NONGISE) GB TO 187
      ISHT = MeD(ISHT+1, VXSHT)
                                                                                  0150
      IF(ISHT .NE. 0) G8 T8 183
                                                                                  0151
      IF(RECNTR +EQ+ NOREC) G9 T9 187
                                                                                  0152
      D8 186 I = 1.LREC
                                                                                  0153
      IBUF(I) = IBUF(I+LREC)
186
                                                                                  0154
      CALL BININ(1, IBUF(LREC+1), LREC, IND)
                                                                                  0155
      RECNTR = RECNTR + 1
                                                                                  0156
      GB TB 183
                                                                                  0157
      CALL BAKREC(ITAPE, RECNTR)
187
                                                                                  0158
      CALL WRITE(NOSFILE, KBUF, LREC)
                                                                                  0159
      ISHT = C
                                                                                  0160
      GB TB 28
                                                                                  0161
                                                                                  0162
                                                                                  0163
```

F9UC0164

END

```
0001
      SUBROUTINE NIFTY
                                                                                0002
                                                                                0003
      NIFTY DRIVER
                                                                                2004
     DIMENSION IBUF (8192)
                                                                                0005
                                                                                0006
      INTEGER INUNIT, OTUNIT, EOF, INMODE, SUTMODE
      INTEGER WRITESF, TAPRWD, FINISH, FILES, RECORDS, DUMP, NFILE, DIR,
                                                                                0007
                                                                                8000
             UNIT, MODE, NREC, RWOPTH, LREC
      NAMELIST WRITEF, TAPRWD, FINISH, FILES, RECORDS, DUMP, NFILE, DIR,
                                                                                0009
               UNIT, MODE, NREC, RWOPTN, LREC
                                                                                0010
      NAMELIST KILL, COPY
                                                                                0011
      NAMELIST INUNIT, STUNIT, ESF
                                                                                0012
      NAMELIST INMODE, BUTMODE
                                                                                0013
                                                                                0014
                                                                                0015
      DATA KILL/C/
                                                                                0016
   10 WRIEGF = TAPRWD = FINISH = FILES = RECORDS = DUMP = 0
                                                                                0017
      CSPY = 0
                                                                                0018
                                                                                0019
      gutput(t02) 'REQUEST'
                                                                                0020
       INPUT(101)
                                                                                0021
      IF(KILL .NE. C) RETURN
                                                                                0022
      IF(FILES .NE. O) CALL FILSKP
                                                                                0023
      IF(RECORDS .NE. 0) CALL RECSKP
                                                                                0024
      IF (DUMP +NE+ 0) CALL SDUMP
      IF(COPY .NE. O) CALL TOOPY
                                                                                0025
                                                                                0026
      IF (WRTESF +NE+ 0) GS TS 30
                                                                                0027
   20 IF (TAPRNO .NE. 0) G8 T9 40
      IF((FILES *EQ* 0) *AND* (RECORDS *EQ* 0) *AND* (DUMP *EQ* 0)
                                                                                8500
     * * * * AND * (WRITER * * EQ * O) * AND * (TAPRWD * EQ * O) * AND * (COPY * EQ * O))
                                                                                0029
                                                                                0030
     * CUTPUT(102) 'WAKE UP SLEEPY '
      68 TB 10
                                                                                0031
                                                                                0032
                                                                                0033
      SUTPUT(102) 'SPECIFY UNIT, RASPIN'
30
                                                                                0034
      INPUT(101)
                                                                                0035
      CALL WERF (UNIT, RWOPTN)
                                                                                0036
      G8 T8 20
   40 SUTPUT(102) 'SPECIFY UNIT'
                                                                                0037
                                                                                3ECO
      INPUT(101)
                                                                                0039
      CALL RWND(UNIT)
      G8 T9 10
                                                                                0040
                                                                                0041
                                                                                0042
      SKIP A CERTAIN NUMBER OF FILES ON A TAPE
      CAUTION - DO NOT TRY TO SKIP PAST THE BEGINNING OR END OF TAPE
                                                                                0043
      MARKS. WHEN IN DOUBT REWIND
                                                                                0044
                                                                                0045
      SUBREUTINE FILSKP
                                                                                0046
      SUTPUT(102) 'SPECIFY NFILE, DIR, UNIT'
                                                                                0047
      INPUT(101)
                                                                                0048
                                                                                0049
      IF(DIR .NE. C) CALL BAKSCN(UNIT, NFILE); 38 TO 10
                                                                                0050
      CALL FORSON(UNIT, NFILE)
                                                                                0051
10
      BUTPUT(102) 'DESIRED FILE'
                                                                                0052
      RETURN
                                                                                0053
                                                                                0054
      SKIP A CERTAIN NUMBER OF RECORDS ON A TAPE
```

```
0055
                   DO NOT TRY TO SKIP PAST THE BEGINNING OR END OF TAPE
      CAUTION
                                                                                 0056
               WHEN IN DOUBT, REWIND
      MARKS.
                                                                                 0057
                                                                                 0058
      SUBROUTINE RECSKP
                                                                                 0059
      SUTPUT(102) 'SPECIFY UNIT, NREC, DIR'
                                                                                 0060
      INPUT(101)
                                                                                 0061
      IF(DIR .NE. 0) CALL BAKREC(UNIT, NREC); G9 T8 10
                                                                                 0062
      CALL FORREC(UNIT, NREC)
                                                                                 0063
      BUTPUT(102) 'DESIRED RECORD'
10
                                                                                 0064
      RETURN
                                                                                 0065
                                                                                 0066
      READ IN A TAPE AND DUMP ON LINE PRINTER
                                                                                 0067
                                                                                 0068
      SURROUTINE SOUMP
                                                                                 0069
      SUTPUT(102) 'SPECIFY LREC, NREC, MODE, UNIT'
                                                                                 0070
      BUTPUT(102) !MBDE=0-BCD; 1-BINARY!
                                                                                 0071
      INPUT(101)
                                                                                 0072
      NLINES = LREC/8
                                                                                 0073
      IF(NLINES*8 .LT. LREC) NLINES = NLINES + 1
                                                                                 0074
      D9 30 I = 1,NREC
                                                                                 0075
      D9 5 ICLR * 1, LREC
                                                                                 0076
    5 \text{ tBuF(ICLR)} = 0
                                                                                 0077
      IF(MODE.EG.O) CALL SCDIN(UNIT, IBUF, LREC, IND); 38 TA 10
                                                                                 0078
      CALL BIMIN(UNIT, IBUF, LREC, IND)
   10 IF(IND .NE. 0) SUTPUT(102) YOU HIT AN ESFI;GS TS 40
                                                                                 0079
                                                                                 0080
      DB 20 L = 1.NLINES
                                                                                 0081
      K = (L-1)*8 + 1
                                                                                 2800
      WRITE(6,200) IBUF(K), IBUF(K+1), IBUF(K+2), IBUF(K+3), IBUF(K+4),
                                                                                 0083
     * IBUF(K+5), IBUF(K+6), IBUF(K+7)
                                                                                 0084
  200 FBRMAT (1X,8812)
                                                                                 0085
   20 CONTINUE
                                                                                 0086
   BO CANTINUE
                                                                                 0087
   40 RETURN
                                                                                 8800
      SUBROUTINE TOOPY
                                                                                 0089
                                                                                 0090
     COPIES ONE TAPE ONTO ANOTHER TAPE IN BCD OR BINARY
       WITH THE OPTION OF PUTTING AN ENDFILE ON THE OUTPUT TAPE
                                                                                 0091
       WHEN THE CORVING IS COMPLETED THE VALUE OF IRECNT, THE
                                                                                 0092
                                                                                 0093
       NUMBER OF RECORDS THAT HAVE BEEN TRANSCRIBED ONTO THE OUTPUT TAPE .
                                                                                 0094
       WILL BE BUTPUT
                                                                                 0095
                                                                                 0096
       SUTPUT(102) 'SPECIFY LREC, NREC, INMODE, BUTMSDE, INUNIT, STUNIT, ESF'
                                                                                 0097
       OUTPUT(102) 'MODE=1-BINARY;0-BCD'
                                                                                 0098
       INPUT(101)
                                                                                 0099
       IRECNT = 0
                                                                                 0100
       D8 30 1 = 1.NREC
                                                                                 0101
       DE 10 J = 1,LPEC
                                                                                 0102
    10 IBUF(J) = 0
                                                                                 0103
       IF(INMODE . EG. 0) CALL ECDIN(INUNIT, IBUF, LREC, IND); GB TB 20
                                                                                 0104
       CALL BININ(INUNIT, IBUF, LREC, IND)
                                                                                 0105
    20 IF(INC .NE. C) BUTPUT(102) THE HIT AN ESFT; GS TO 40
       IF(AUTHADE.EG.O) CALL BCDBUT(BTUNIT, IBUF, LREC, IND); 39 TB 30
                                                                                 0106
                                                                                 0107
       CALL BINGUT(GTUNIT, IBUF, LREC, IND)
                                                                                 0108
    30 IRECNT = IRECNT + 1
                                                                                 0109
    40 IF(EBF .EQ. 1) CALL WEBF(BTUNIT.C)
```

8UTPUT(102) IRECNT	0110
RETURN	0111
SUBROUTINE ADUMMY	0112
RETURN	0113
END	0114

EXPUNGE

TITLE ESP93

EEXTENDED SIGNAL PROCESSING PROGRAM

(VERSION 1175, REVISION A

[11/6/75

NECARRET ENTRY ESP93, INIT, A9300, INI2, NPAR, TSFLG, TDXDY, LDXDY, DTXY, WAIT1, NEWL, INI5, INI7, INI8, TLOOP, TL10, TL30, TL50, CDXDY, NEXT, MOVED, FREQD, FREQ2, FREQ3, FREG4, F2,F3,TIMED,CONVI,CONVF,FSD,FSD1,SLIST, GPAR, GP10, GP40, GP60, ATCB, PNAME, BLANK, BEGIN, INTL, INTS, INTSL, INTL9, CTBL.PIU.SDU.LDU.SCLN. FBU, SCLD, READ, SWITCH, REMOF, REMOV, REMA, REM8, ROT, SLADJ, SCADJ, SPL, SPLP, IPL, LINE, GRP, NPTR, NSL, TIMED, FTIME, RESO, LP1, LP2, LP3, INTX, XGAP, DELX, SXCYO, NFRAM, NSHUT, PICS, MOVIE, LCTR, ALINE, BLINE, GCTR, XSP, PCTR, SBA, LOXN, LDYN, VOXY, TEMP1, DBA, TIME, INTGT, FUNCT, SCTR, CS1, LIGHT, RBUF, SCL1,88,13,CAPTR,WBUF,CBLK, VERSAT, DBLK, DBLK1, VTSEND, GET93, ANGLE; CARRET

DBLK1=16CCC BASEA=1COOO BASEB=BASEA+15CO. NN=C IREPEAT ZZ,(1,2,3,4,5,6,7,8,9,10) ABLKNZZ=BASEA+NN BBLKNZZ=BASEB+NN NN=NN+15C. ENDI

MV00065=2500CVH

TPVT1=77750 TPVT2=77751 8VFPV=77771 TTY9F=-3 PINPV=77743

rsp93	VERSION 11 F	REVISION B CREATED	OG JUN 66 DATE
ESP93:	ASAC BSAC BSAC BAC BAC BAC BAC BAC BAC BAC BAC BAC B	* \$AXINZ \$AXINT \$FCLH	[AGT/9300 ENTRY [INITIALIZE 9300 COMMUNICATIONS] [SET FRAME CLOCK PIVOT
	ARMD MDAR'F MDAS'F'N	77755 \$CHARS 1	CCLEAR CHAR BUFFER
	ARMD ARXO'F ARMD'X'I	TEMP Temp	
	MDAR MDX8'F JPLS	TEMP \$ECHAR ••4	
	MDIC'A'L; MD10 JUMP	-10 CO INI1	CLCG OFF CAVO, CLOCK AND SCOPE OFF
INIT:	O JPSR MDARIN	\$AXINT NPAR	CREINITIALIZATION CRESET COMMAND WORDS CWAIT FOR INPUT
	JPAN JPSR	•=1 GPAR	CPROCESS INPUT
· INI1:	ARXO!F ARMD	HSL	CRESET SWITCH SPTIONS
•	A R M M D D D D D D D D D D D D D D D D D	PICS STARF RELINE LIGHT C1 SCAD6	
	H'AACM	\$5₩91 3	CLOOK FOR INITIAL 9300 COMMAND
	MDX8 *F JPLS MDAR ARMD *L	•=2 \$SW81	[UUMP IF COMMAND NOT CODE 2 [READ INITIAL PARAMETERS
INADR:	O MDAR!H ARMD JPSR	\$SW82 NIP \$R3%FW O INADR IPL	
NIP:	JPSR	0 ∌FI\SH	(SEND COMPLETION CODE
ISETUP IN	ITIAL DISPLAY	BROINATES	
RECON:	MDAR!F ARMD	CAPTR CAPTR 157	ISETUP INIT LINE POINTERS
	. •	157	

ESP93

VERSION 11 REVISION B CREATED 06 JUN 66 DATE

MDARIF

CBPTR

ARMO

CBPTR

SP93	VERSION 11	REVISION B	CREATED	06 JUN 66	DATE
	MDARIN MDASIF ARMD	LINE 1 LCTR		CRET LINE	CBUNT
INI2:	MDAR'I'X MDAS'F'N ARMD MDAR'I'X MDAS'F'N	1 ALINE CBPTR 1		IGET LINE	BJFFER
	ARMD MDARIH MDAEIHIN ARMD	BLINE XO INTX XSP		CGET INIT	SPACING
	MDARIN MDASIF ARMD	GRP 1 GCTR		(SET GRBUF	P CBUNT
INI3:	MDARIN MDASIF ARMD	NPTR 1 PCTR		[SET P9INT	
	ARX81F ARMD	TEMP		CGET MOVE	BIT
INI4:	MDAR MDAE'H MDAR'A ARMD MDAR'S ARMD'I'X			CSET DRAWN CENTER VAL	TIE EVERY
	ARMDII'X MDAR ARMD MDAR'X JPLS	BLINE C1 TEMP PCTR INI4		[GET DRAW	
	MDAR'X JPLS JUMP	GCTR •+2 INI5		[BUMP GRB.	JP CBUNT
	MDAR MDAE'H ARMD JUMP	XSP XGAP XSP INI3		CADD GAP	
INIS:	MDAR MDAR'B ARMD'I ARMD'I	XSP C141 ALINE BLINE		(SET ESL)	317
	MDAR'X JPLS	LCTR		[BUMP LINE	TULED
	MDAR AMD MDAS	NPTR L1 NPTR	159	[SETU⊅ BRE	STRIEG NAS

ESP93	VERSION 11	REVISION 3	CREATED	VUL 00	66	STAC
*	ARMD MDAS ARMD	L2 NPTR L3				

(SET UP ALTERNATE LINE DISPLAY BUFFER

INI7:	MDAR MPYL	GRP NPTR	ISET POINT COUNT
	0		
	ARRS	1	
	ARMD	PCTR	
	MDAR	ABLK	IGET BUFFER ADDRESS
	ARMD	•+2	
	JPSR	CBVBP	CTRANSFER DATA
		0	
		CBLK	•
		PCTR	
	MDARIB	XGAP	ISETUP PRINTS IN GAP
	DIVL	INTX	
	0		
	ARMD	GAP	
	MDAR	NPTR	
	ARMD	२1	
	MDAS	GAP	
	MDASIN	C1	
	ARMD	R2	
	MDAR	L2	
	SACE	GAP	
	MDASIN	Ci	
	ARMO	ā 3	
	MDAR	GAP	
	MDAS	GAP	
	MDASIN	C2	
	AR™D	TEMP	
	MDAR	L2	
	MDAS	TEMP	
	AR~D	24	
	SACM	L3	
	MDAS	TEMP	
	ARMD	R 5	_
	MDAR	RELINE	(SKIP IF REGROUP
	JPAN	RECON1	
[SETUP DX	DY TABLE FOR LINE	DISPLAY	
	MDAR'L'N;	06000	CINIT. ANGLE APPREX 30 DEG
	1000	ANCLE	

ANGLE

JPSR

FSP93	VERSION 11	REVISION B CREATE	STAC 66 PUL 60 C	
	MDAR!A	SCAM		
	ARMDIN	LDYN	[SAVE Y SPACING	
	ARMD 18	CTGG	LOGUE SUN	
	JPSR	CDXDY	COMPUTE DXDY	
ISET UP DE	BUBLE BUFFER	DISPLAY LIST		
RECON1:		•	•	
WECO.41 •	JPSR	MOVED		
	O 211	ABLK		
		∌ GRP0		
		LINE		
	JPSR	CBV6P		
		BBLK		
		\$GRP1		
	ARX8 1 F	LINE	TRESET BUFFER SELECTOR	
	ARAGIT	\$LGRP	TRESET BUFFER SELECTOR	
	ARMO	\$NBUF	TRESET NEW BUFFER READY INDICATOR	,
	ARMD	STOG	(RESET SPAT TOGGLE	
	MDARIF	SPL+1	TRESET SPOT PTR	
	ARMD	SPLP		
(SET UP S	IDE LINE DISP	LAY SRDINATES		
	MDARIF	SNADAT	(SETUP SIDE LINE	
	MDASIFIN	1		
	ARMD	SBA		
	ARXOIF		[SET INITIAL SPACING	
	A~~D	XSP		
	MDARIN	GRP	[SETUP GROUP COUNT	
	MDASIF	1		
	ARMD	GCTR		
INI8:	MIRACE	NPTR	(SETUP POINT COUNT	
	474S1F	1		
	ARMD Arxoif	PCTR	FOECET MAUE BIT	
	ARMD	TEMP	CRESET MOVE BIT	
	AREU	1675		

FSP93	VERSION 11 REV	ISION & CREATE	STAD 66 PATE
IN19:	MDAR	XSP	CPACK DATA
	MDARIA	M1	
	MDARIB	TEMP	
	ARMD ! I 'X	SBA	CENTER DATA
	MDAR	C1	[SET DRAW BIT
	ARMD	TEMP	
	MDAR	XSP	COUMP SPACING
	HIBACM	DELX	•
	ARMD	XSP	
	MDARIX	PCTR	CBUMP PBINT CBUNT
	JPLS	IN19	500 MB - 045
	MDAR	XSP	[BUMP GAP
	H*BACM	XGAP	
	ARMD	XSP	FOR MD CDBUT
	MDAR*X	GCTR	CBUMP GROUT
	JPLS	INIS	
	MDARTI	SBA	
	MDAR 18 1H	Ci	
	ARMD'I	SBA	
	MDAR	OYCX	ISET UP DXDY
	ARMD	YCXCN	
	MDARIL		CRESET WORDING BUFFER
	4005	CBLK	
	ARMO	ABUF	
	MDARIF	\$GRP0	
	ARMD MDAR1F	DGRP #CDD1	
	ARMD	\$GRP1 #63B	
	MDARIL;	#GRP 2525252525	
	ARMD	ALTB	
	MDAR	RELINE	(SKIP IF REGROUP
	JPAN	RECONS	
		•	,
	ARX8'F	0 4 1VD	TOURING COME A THE DICPLAY ABTION
	ARMD	CXLAR	[CLEAR SIDE LINE DISPLAY OPTION [RESET CRNT LINE PTR
	ARMD MDARIL;	CLPTR 4000	ISET UNITY SCALE FACTOR
	ARMD	SCL1	IGROUP SCALES
	ARMD	SCL2	CONSOL SCREES
	ARMD	SCL3	
		905	
[SET UP D]	SPLAY PARAMETERS	5	
	MDAR	LINE	[NUMBER OF DISPLAY LINES
	ARMD	\$NLINE	
	MDARIH	M1629	[INITIAL PICTURE SCALE
	ARMD	\$SCALE	
	MDAR	LIGHT	(SP9T LIGHT 8PTI8
	ARMO	\$SFLG	

5P93	VERSION 11	REVISION 3	CREATED	06 JUV	66	DATE
RECON2:	F F F F F F F F F F F F F F F F F F F	123 R PPAT 1230 SIIR R PPAPAT SITOTS PPAPAPA PPAPAPAPAPAPAPAPAPAPAPAPAPAPAP		[MBDIFY	r IT FBR	GROUP
INI10:	MDARIN ARMD MDARIF ARMD MDARIF ARMD MDARIF ARMD	C2 LCTR LP1-1 TEMP1 SP9T- TEMP2 CS1-1 SPTR	1	[ADDR 5	OF LEAD	

€ SP93	VERSION 11	REVISION B CREATE	D 06 JUN 66 DATE
INIII:	MDARSOLI X MDARSOLI X MDARSOLI X MDARSOLI X MARAMARAM ALL AMMOSRANPO ARDP DARMOPPORRR NPO MADP DARMOPPORPO MADP JON	NPTR IWDE 1 TEMPP2 IWMPP2 IWMPP2 IWMPP2 IWMPP2 IWMPP2 IWMPP2 IMMPP2 IMMP	CPOSITION SPOTS [AT THE CENTER OF LINE] [ADD LEAD POINT [LEADING EDGE OF SPOT] [SETUP S1,52,53] [GET CENTERS] [COMPUTE CENTER FREQUENCY]
INI12:	JPSR JU AR APSR ARXO ARXO JPSR JPSR JPSR JPSR	\$DISPL REDONE TIMEO TIMED FUNCT FSD \$AVGON \$DISPL	[STARTING TIME [CLEAR FS LATCH [CLEAR FS 9N COUNT [AVG, SCOPE, CLOCK ON [START DISPLAY
	MDAR'F MDAS'F'N ARMD MDAR'L JUMP ARMD	SCHARS 1 CP1 BEGIN WT1	[RESET PTR TO CHAR BUFFER [SET JP FOREGROUND/BACKGROUND
TLOGP:	JPSR	ICHTY 2	[INPUT CHAR FROM TTY
TL5:	ARMDIL O MDARIN JPAN	NPAR TL10	CGAVE AR EGO ON, READY FOR NEW INPUT

MDAR TL5 (RESTORE AR

TL7:

*,1à3	VERSION 11	REVISION B CREATED	06 JUV 66	DATE
	JUMP	TLSEP	CRESTART TTY	INPUT
71.101	40.0	7746	FORT THE ACC	11 6000

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TL10: MDAR TTYC IGET THE ASCII CHAR MDAR'A'F 177 IMASK BUT PARITY GIS IT CARRIAGE RETURN>G JPLS TL30 INB

3	VERSION 11 REV	VISION B CREATE	ED 06 VUL 66 DATE
	ARMD 10 JUMP	NPAR TL7	[SET PARAM» VALUE READY FLAG [AND RESTART TTY INPUT
TL30:	MDX8'F UPLS	15:177 TL50	TLEBURT BKJ
TL40:	MDARIF MDASIFIN MOXO	\$CHARS 1 CP1	
	JPLS JUMP	•+2 TL7	[THIS JUMP IF CHAR TO RUB OUT [ELSE NO CHAR YET, IGNORE RUBOU
	ARXO'F ARMD'I MDAR MDASIF'N	CP1 CP1 1	CREMOVE LAST CHAR FROM BUFFER LAND DECREMENT PTR
	DMPA PWUU	CP1 TL7	ISTART TTY AGAIN
TL50:	MDARIF MDASIFIN MDXS	\$ECHAR 1 CP1	
	JPLS	•+2 TL7	[JUMP IF ROOM FOR A CHAR [ELSE IGNORE THE CHAR, WAIT FOR
	MDAR MDAR'A'F MDX8'F	TTYC 177 52	CIS CHAR. A !!#!!
	JPLS ARMD'8	•+2 STARF	[N9, SKIP IT [SET *FLAG
	MDAR'A'F AR'AO'I'X ARMO'I'X AYD'O GYUU	TTYC 376 CP1 TSFLG TL7	CGET THE CHAR, POSITIONED [MASK OUT PARITY [AND PUT IT IN BUFFER [SET DISPLAY FLAG [GO RESTART TTY
(SUBRBUTIN	E TO COMPUTE DXI)Y TABLE	
CDXDY:	JUMP	•	FORT ALTRONATE RUFFER

CDXDY:	ЈИМР	•		
	NIRACE	CTSG		[GET ALTERNATE BUFFER
	ARMD	CTEG		
	JPAÑ	• • 3		
	MDARIF	LDXDY		
	J∪MP	•+2		
	#DAR *F	TOXEY		
	ARMD	WDXY		
	MDAS	LINE		ESTART WITH BETTOM OF STACK
	MDASIFIN	1		
	ARMO	SBA		
	MDARIN	LINE		(RESET LINE COUNT
	MDASIF	5	167	

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VERSION 11 REVISION 3 CREATED 06 JUN 66 DATE
ARMD LCTR

P93	VERSION 11	REVISION B	CREATED 06 JUN 66 DATE P
	ARXSIF		(SET JP INITIAL VALUE
	ARMD	VDXY	
	ARMD ! I	SBA	CENTER VALUE
NEXT:	MDAR	SBA	IBUMP STACK PRINTER
	MDAS'F'N	1	
	ARMD	SBA	
	MDAR	VDXY	[BUMP DXDY VALUE
	MDAETH	LDXN	
	MDAS	LDYN	

ARMD VDXY
ARMDII SBA
MDAR'X LCTR [BUMP LINE CBUNT JPLS NEXT]
MDAR WDXY [UPDATE DISPLAY]

TVIBO

MDAR WDXY EUPDATE DISPARED STXY
MDIR CDXCY

ISUBROUTINE TO DO SOME OF THE COMPUTATION FOR THE DXDY TABLE [CALLED BY INI7 AND ROTO

JUMP ANGLE: **JPSR** \$SNC8S EGET SPACING MDAR INTX MPYL LINE 0 ARRS ARMD TEMP ARXBIF (EXTEND SIGN MDAS SSINE DIVL TEMP ARI'D TEMP ARXEIF SACM TEMP ARMD XINC ISAVE POINT COUNT IN X MPYL INTX [GUANTIZE X ARRS MDAR!A RCAM [SAVE X-SPACING ARMD LDXN ARX8'F SEXTEND SING SACE \$C9SN DIVL LINE

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MDIR

ETURN

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ISUBROUTINE TO TRANSFER DATA

Meved:	JUMP MDAR'I MDAS'F'N ARMD	MOVED 1 SBA	[GET SOURCE ADDRESS
	MDAR'I'X MDAS'F'N ARMD	MOVED 1 DBA	GET DESTINATION ADDRESS
	MDAR'I'X ARMD MDAR'I'N MDAS'F ARMD	MOVED TEMP TEMP 1 WCTR	EGET WORD COUNT
MORE:	MDAR'I'X ARMD'I'X MDAR'X JPLS MDIR'X	SBA DBA WCTR MBRE MBVED	CTRANSFER DATA

ISUBROUTINE TO CALCULATE SPOTLIGHT FREQUENCIES

FREGD: JUMP MIRACE LIGHT CRETURN IF NOT REGD CRESET SPOT COUNT FREGD ANIR MDAR GRP HIBNCH 1 JPLS FREG1 NSL MDARIN JUMP FREG2

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9	3	VERSIEN 11 REV	ISION B CREATED	DATE 36 NUL 36 C
	FREQ1: FREQ2:	MDARIN MDASIF ARMD	GRP 1 LCTR	
		MDAR MDAS	CS1 ST1	IGET CENTER SPOT [ADD STARTING POINT
		ARAR'F'B DIVL O	RESE	CONVERT TO FREQUENCY
		ARMD MDAR!A!H ARRS	CF1 MADR 1	(SAVE INTEGER (GET REMAINDER
		DIVL 0	i iese	FACHIAMAN THE CIVICE
		MDAR'A JPSR	MADR CONVF 4	CONVERT FRACTION
		RACM A'RACM RSQL	\$F191 CF1 MADR CONVI 3	CGET INTEGER PART CCONVERT INTEGER
		MOAR'N ARMO MOAR'E	#F1L3 #F1L1 #F1L1 CTR FREG3 CTR F2-1 C1 SBA C40 SBA C40 SBA C-3 C1	CSET NSPOT TO 1
		ARMO ARMO MDIR	≸NSP8T NSP8T FREGO	
	FREG3:	MDAR MDAS ARARIFIB	CS2 ST2	(DO NEXT SPOT
		DIVL 0	RESO	
		ARMO MDARIAIH ARRS	CF2 MADR 1	
		DIVL 0	RESS	
		MDAR!A JPSR	MADR CANVE	

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P:

\$F2R1 CF2 MADR MDAR MDARIA

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DATE
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193
                  JPSR
                                   CONVI
                                   $F2L3
                                   $F2L2
                                   $F2L1
                                   LCTR
                  MDARIX
                                   FREG4
                  JPLS
                                                   CCLEAR REMAINING DISPLAY
                                   C6
                  MDARIN
                                   LCTR
                  ARMD
                  MDARIF
                                   F3-1
                  H'E'RACM
                                   C1
                  ARMD
                                   SBA
                  SACM
                                   C40
                  B'X'I'CMFA
                                   AER
                  MDARIX
                                   LCTR
                  JPLS
                                   • - 3
                                                   (SET VSPOT TO 2
                                   C2
                  SACK
                                   #NSPET
                  ARMD
                  GYPA
                                   NSPOT
                                   FRESD
                  SICH
                  SACE
                                   CS3
   FREG4:
                                   ST3
                  MDAS
                  ARARIFIB
                                   RESA
                  DIVL
                  0
                                   CF3
                  ARMO
                                   SCAM
                  H'A'BACE
                  ARRS
                                   RESS
                  DIVL
                                   PCAM
                  MDARIA
                                   CONVE
                  JPSR
                                   $F3R1
                                   CF3
                   MDAR
                   AIFACE
                                   SCAP
                                   CENVI
                   JPSR
                                   $F3L3
                                   $F3L2
                                   $F3L1
                                                   [SET NSPOT TO 3
                   SACE
                                   C3
                   ARMO
                                   $NSP@T
                                   NSPOT
                   ARMD
                                   FRESD
                   MDIR
                   $F2L1; #F2L2; #F2L3
   F2:
                   $F2R1; $F2R2; $F2R3; $F2R4
                   $F3L1; $F3L2; $F3L3
   F3:
                   $F3R1; $F3R2; $F3R3; $F3R4
```

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. 1	Δ	ı	-
•	•	•	_

CSUBROUTINE TO UPDATE TIME

TIMED:	JUMP	•	
	CMFA	TIME	CUPDATE TIME
	ARAR'B'F		
	DIVI	50 •	(GET NUMBER OF SECONDS
	9	•	
	ARMD	TEMP1	
	ARRS	16.	
	0		
	JPSR	IVVES	CONVERT SECONDS
	•	2	
		\$SEC2	
		\$SEC1	
	E'SAC"	TEMP!	IGET NUMBER OF MINUTES
	MOARIA	PCAM	
	IVIC	50 •	
	5		
	CMPA	TEMP1	
	ARRS	16.	
	0		
	JPSR	CBNVI	[CONVERT MINUTES
	• • •	2	
		*~I\2	
		\$MI\1	
	MDAR	TEMP1	(GET NUMBER BE HBURS
	MDARIA	∡ A⊃R ¯	
•	JPSR	IVVES	[CONVERT HOURS
	U F 3N	2	
		_ \$H9∪R2	
		\$H9UR1	
	MDIR	TIMED	
	1017	11100	

ISUBROUTINE TO CONVERT INTEGERS TO ASCII

cenvi:	JUMP	•	
794 ; ;	ARMO MDARII'N MDAS'F ARMO MDAR'X JPUS JPUS JPUS JPUS JPUS JPUS JPUS JPUS	INTG CONVI 1 LCTR1 LCTR1 ++2 CNV2 CONVI TEMP INTG 12	CANVE INTEGER VALUE CGET CHAR COUNT CCONVERT INTEGER TO DECIMA;
		: · · · · · · · · · · · · · · · · · · ·	CONVERT DECIMAL TO ASCII

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P;
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DATE

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MDASIF
                               60
                               TEMP
                                               CENTRY ASCII CHAR
               ARMD'I'B
               MDAR
                                               EDB NEXT CHARACTER
                               INTS
               ATRACE
                               SCAP
               ARMD
                               INTG
               JUMP
                               CNV1
               MDAR'X'I
                               CONVI
CAAS:
                               TEMP
               ARYD.
               SACE
                               INTG
               MDASIF
                               50
                                               CENTER LAST ASCII CHAR
                               TEMP
               ARMD'I'B
               X'SICM
                               CONVI
ISUBRBUTINE TO CONVERT FRACTION
               qسرن
C8NVF:
                               TEME
                                               (SAVE VALUE
               CMFA
               VII SACE
                               CONVE
                                               EGET DIGIT COUNT
               MDASIF
                               1
                               LCTR1
               ARMO
               X'I'SACM
                               CONVE
                                               IGET ADDRESS
               MOASIFIN
               ARYD
                               SPTR
               FACM
                               TEMP
                                               CONVERT VALUE
CNVF1:
               MPYI
                               12
               ARMD
                               TEMP
                                               ISAVE REMAINDING VALUE
               ARRS
                               15.
                               60
               MDASIF
                                               CUPDATE DIGITS
               ARYDII'X'B
                               SPTR
                               TEMP
               SACE
               AIFACE
                               FCAM
               ARRS
               ARYD
                               TEMP
                               LCTR1
                                               COUMP DIGIT COUNT
               XIFACE
               JPLS
                               CNVF1
               XIRICM
                                               CRETURN
                                CONVE
(SUBROUTINE TO TURN ON FUNCTION SWITCH INDICATORS
               ٩٨٧٤
FSD:
                                               ESAVE SWITCH STATUS
               ARAS
                                1
                               FCT
               ARMD
                               435
                                               IBLANK BUT SWITCH BUFFER
               FACM
               ARMD
                               LCTR
               MOARIF
                                38JF - 1
               CMFA
                                SPTR
               SACE
                               C40
                               SPTR
               ARMD'I'X'B
                                LCTR
               KISACM
```

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JPLS

VERSIEN 11 REVISION & CREATED 06 JUN 66

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F9P93	VERSION 11 REVISIO	N B CREATED	06 JUN 66 DATE
	ARMD S MDARIN C	SBUF-1 SPTR 117	CRESET BUFFER POINTER
FSCO:	MDAR'B F	,CTR CT CT	CHECK SWITCH STATUS
FSD1:	JPAN F MDAR'X L	SD3 CTR SD0	(9N - DISPLAY NUMBER
	ARMD'I'X S	END2 SPTR 135	ISET TEXT END OF LIST ITRANSFER DISPLAY BUFFER
	MDARIF S ARMD I MDARIF S MDARIGIA C	CTR BJF-1 B BLIST-1	
FSC2:	MDAR'I'X I ARMD'I'X 9 MDAR'X L JPLS F	99 8 98 ,CT3 SD2 SD	[RETURN
FSC3:	MDAR'X S ARMO F MDAR'X S ARMO F MDAR MDAR MDAR MDAS'F JPSR	PTR SD5 PTR SD4 CTR 8.	
FSD4: FSD5:	2 3 9	; }	
	ع م∞رز	SD1	
SLIST:	#\$1A; \$\$18 #\$2A; #\$28; #\$3A \$\$4A; #\$48; #\$5A \$\$6A; #\$68; #\$7A \$\$8A; #\$88; #\$9A \$\$10A; #\$10B; #\$ \$\$12A; #\$12B; #\$ #\$14A; #\$14B; #\$ #\$16A; #\$16B; #\$	3 \$558 3 \$578 3 \$598 114; \$5118 134; \$5138 154; \$5158	(3xITCH DISPLAY LIST

TROUTINE TO GET NEW PARAMETER VALUE TYPED IN

GPAR:	JUMP	•	
	MDAR MDAR ' A ARMD MDAR	FUNCT MSKSW FUNCT \$SW81	[SAVE NAMFLIST BUFFER ADDR.
	ARMD	A9300	•••••
GP1:	ARMD	TSFLG	CRESET INPUT TEXT DISPLAY FLAG
GP5:	MDARIFIN	4	(CLEAR AND PACK PHAME BUFFER
	ARMO	72	
	MOARIF	PNAME-1	
	ARMD	T3	
	MOSR	BLANK	
	BRMDII'X	13	
	X' SACM	72	
	JPLS	• - 2	
	MDARIF	∌ C⊣ARS	
	MOASIFIN	1	
	ARMD	71	CRESET PTR TO CHARS TABLE
	MDARIF	PNAME	(ACSC) - 14 15 COM 10 1 ASSC
	ARMO	15	CRESET PTR TO PACK BUFFER
	ARXSIF	,	EVERENCE AND A MOVE PROPERTY.
	ARMD	73	TRESET ONT OF CHARS PACKED INTO CRNT
	ARMO	74	TRUES CHASH SAHS SAHS
3P10:	X'I'SACP	71	IGET NEXT CHAR
3-10.	·	3 23 0	[JUMP IF 1914ZER9
	JPLS	3630	(00 % 15 //2/47542
3P20:	JPSR	#RAFA	
		-C	
		A9300	
		PNAME	
		5	
	JPSR	#FINSH	
	MDARIF	\$CHARS	CCLEAR CHARS DISPLAY BUFFER
	MDASIFIN	1	
	ARMD	71	
	MOER	co	
	SRMDII'X	71	
	MDAR	71	
	MOX9 F	SECHAR	
	JPLS	_	•
		• • 3	
	ARX8'F	NPAR	CRESET NEW PARAMO READY FLAG
	ARMD	YPAR	THE DE I YEN PARA THE READT PEAD

FSP93	VERSION 11 REV	ISION B CREATED	06 JUN 66 DATE P.
*	MDAR'F MDAS'F'N ARMD	\$CHARS 1 CP1	CRESET PTR TO CHARS BUFFER
	MDAR JPAN	STARF GP25	[LAST RECORD
	MDARIN UPAN	NPAR	[WAIT FOR NEXT BLOCK
	JUMP	GP1	CG8 DI IT
3P25:			
	ARX8'F ARMD MDIR'X	STARF GPAR	CRESET EOR INDICATOR
GP30:	ARRS MDASIFIN	1 37	
	ARMD Jean	T5 GP40	(SAVE FOR ASCII TO BCD TABLE LOCKUP (JUMP IF ASCII 0-37 (USE CHECK)
	MOASIFIN	100	
	UPAN	GP50	CUUMP IF TO DO TABLE LOCKUP
3F40:	PACP CYPA	C2 T:	(ELSE ASCII 140-177 (USE CHECK)
3P5C:	MDARIF	4793-1	
	MDAS ARMD	75 75	CHAVE PTR TO TABLE ENTRY
	X' RACM	T3	CBUMP CHAR COUNT
	MD X & * F UPLS	5 3P60	COUMP IF RESM IN CRNT WERD
	MD AR CM SA	C1 *3	CELSE SET ONT TO 1
	40ARIX	T 2	CAUMP PTR TO PACK WORD
3P60:	MDAR'F MDAS ARMD	3TA6-1 T3 T6	ISAVE PTR TO MASK TABLE
	MDAR 1F MDAS	LSFT-1	
	ARMD	T7	(SAVE PTR T9 SHIFT TABLE
	MDAR'I MDIR'I ARBR'E	†2 †6	[GET CRNT WORD [MASK DUT CRNT POSITION [SAVE IN BR

```
r - 293
                 VERSION 11 REVISION & CREATED 06 JUN 66
                                                                   DATE
                     MDARII
                                     T5
                                                    [GET THE BCD CHAR
                    I'RICM
                                     17
                                                    (SHIFT IT
                    BRAR 18 1F
                                                    LMERGE INTO CRNT WORD
                                     T2
                    ARMD'1
                                                    CAND SAVE NEW CRNT WORD
                                     T4
                    MUARIX
                                                    EBUMP TOTAL CHAR CHT
                    MOXBIF
                                     20.
                     JPLS
                                     GP10
                                                    IGET NEXT CHAR IF NOT 20 YET
                    JUMP
                                     3P20
                                                    TELSE ALL DONE
     BTAB:
                    ADAR'A
                                     40611
                                                    [MASK TABLE
                    ATRACE
                                     41217
                     ALRACK
                                     41823
                    ATRACM
                                     42429
     LSFT:
                                     18.
                    ARLS
                                                    ISHIFT TABLE
                    ARLS
                                     12.
                    ARLS
                                     6
                    0
     CASCII TO BCD CONVERSION TABLE --
     ATEB:
                    60
                                                    CSPACE
                                                    CASSERTED INVALIDS
                    17;17;17;17;17;17
                    14
                                                    ٤٠
                    74
                                                    11
                    34
                                                    ()
                    54
                    SO
                    73
                    4 C
                    33
                                                    [•
                    61
                                                    [/
                                                    ÇQ
                    1;2;3;4;5;6;7;10;11
                                                    [1 75 9
                    15
                                                    (:
                    17
                                                    (;
                    36
                                                    CLT
                    13
                                                    (=
                                                    [GT
                    16
                    17:17
                                                    CCILAVAL 53
                    21;22;23;24;25;26;27;30;31
                                                    I et Al
                    41;42;43;44;45;46;47;50;51
                                                    [J TB R
                    62;63;64;65;66;67;70;71
                                                    IS TO Z
                    17;17;17;17;17 [5 INVALIDS
     PNAME:
                    0;0;0;0;0
```

P:

BLANK:

CMAIN LOOP CALCULATIONS

BEGIN:	MDAR!N JPAN	NPAR Scan	(TTY INPUT REQUEST
	MDAR	C40	LYES, SET NAMELIST REG BIT
	MDARIB	FUNCT	LPUT IN AS IF FUNCTION SAITCH
	ARMD	FUNCT	
SCAN:	MDARIK	FUNCT .	IDISPLAY SWITCH STATUS
	JPSR	FSD	
	MDARIK	\$SW81	(L89K F9R 9300 C9MMAND
	JPAN	BEGIN	
	MDAR!H	\$SW81	[GET COMMAND CODE
	MDARIA	SCAP	
	MDASIFIN	21	CCHECK FOR LEGALITY
	JPAN	•+2	(ek
	JUMP	SC5	(IGNORE ILLEGAL CODE
	MDASIF	22	
	MDASIF	CT3L	(BUILD JUMP ADDR
	BIHIRACM	C1	(SET INDIRECT BIT
	CMFA	CTBL	
	JPSRII	CT3L	[PROCESS COMMAND
SC5;			
	JPSR	#FINSH	[CLEAR ACCESS FOR NEXT COMMAND
	JJ™P	BEGIN	

19300 COMMAND TABLE

670. 4	•	40.000.0	
CT9L:	0	CCURRENT	SVIJ GRAMEBO
	INIT	CODDE OO	- INITIALIZATION
	FSR	[01	- FUNCTION SWITCH REQUEST
	GPAR	50 3	- NAMELIST INPUT REQUEST
	Pi		- PARAMETER UPDATE
	sle	[04	- SIDE LINE DISPLAY SPTION
	300	t 05	- SIDE LINE DATA UPDATE
	LOU	[06	- LINE DATA UPDATE
	291		- RETATION
	SCADJ		- AMPLITUDE SCALING
	MOVIE	1 11	- MOVIE SPTION
	FBU	[12	- FREQUENCY SWEEP SPTISH
	FSDIR	[13	- FREQUENCY SWEEP DIRECTION
	Spg	[14	- SPOTLITE DISPLAY OPTION
	HSS	[15	- HARMONIC RELATED SPOTS
	SLADJ	[16	- SPOT LITE ADJUST
	REGRA	t 17	- RE-GROUP OPTION
	VERSAT	[50	- HARD-COPY OPTION

_	0	2
\mathbf{r}	ч	- ⋖

[FUNCTION SWITCH ASSIGNMENTS:

t	1	RE-INITIALIZATION
t	2	SIDE LINE DISPLAY OPTION
Ĩ.	3	ROTATION
ľ.	4	DISPLAY LOOP
C	5	SPOTLITE ADJUST
ľ	6	HARMONIC RELATED SPOTLITE
ζ	7	SPOTLITE DISPLAY OPTION
ζ	8	AMPLITUDE SCALING
t	9	FREGUENCY SWEEP OPTION
C	10	FREGUENCY SWEEP DIRECTION
r .	11	SINGLE SWEEP
C	12	
į.	13	HARD-COPY OPTION
C	14	
C	15	
ſ	1.6	MAVIE SPITAN

[CONTROL DIALS ASSIGNMENTS:

C	A	SPOTLITE ADJUST
ľ	3	SP9TLITE ADJUST
τ	σ	SPOTLITE ADJUST/ROTATION
C)	AMPLITUDE SCALING
[Ε	AMPLITUDE SCALING
C	F	AMPLITUDE SCALING

[SUBROUTINE TO SETAIN HARD-COPY OUTPUT

VERSAT:	J∪~₽	•	
	MIRACM	LINE	IGET NUMBER OF LINES
	MDASIF	i	
	CMFA	<u> L</u> CTR	(SET UP LINE COUNTER
VERSC:	FACM	OBLK	DESTINATION BLOCK
	MDASIFIN	1	
	AR~D	DBA	CESTINATION ADDRESS
	MACM	NPTR	[GET NUMBER OF POINTS
	X'I'CYFA	DBA	
	FACE	LINE	IGET NUMBER OF LINES
	ARYD'I'X	DBA	
	ARXSIF		
	MDAS	LDXN	[GET X-INCREMENT
	ARMD'I'X	DBA	
	ARX8 F		
	MDAS	LDYN	CGET Y-INCREMENT
	AR~D'I'X	DBA	
	PACM	CLPTR	IGET CURRENT LINE POINTER
	ARMD'I'X	DBA	
	JPSR	VTSEND	

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VERS1: MDAR DGRP [GET SOURCE BLOCK ADDRESS

MDAS'F'N 1
ARMD ISBA (SOURCE BLOCK ADDRESS

, `P93	VERSIEN 11 F	REVISION B CREAT	ED 06 JUN 66 DATE
VERS2:	MDAR MDAS!F!N	08LK 1	(DESTINATION BLOCK
	ARMD	DBA	IDESTINATION OF ADDRESS
	MDAR'I'X	ISBA	
	MDASIFIN	1	
	ARMD	SBA	[SOURCE ADDRESS
	MOARIN	NPTR	GET NUMBER OF POINTS PER LINE
	MDAS'F	1 PCTR	ISET UP POINT COUNTER
VERS3:	CMRA X'I'RACM	SBA	CGET X VALUE
A51.221	ARRS	15.	
	ARMD'I'X	DBA	ISTUFF IN DUMP BLOCK
	ARXOIF		CPUT ZERO IN A REGIS.
	MDASII	SBA	CGET Y VALUE
	ARMD!I'X	DBA	ISTUFF IN DUMP BLOCK ICHECK POINT COUNTER
	MDAR'X JPLS	PCTR VERS3	INDESTRICTED
	J-L3 JPSR	VISEND	(SEND BUT THE LINE
	MDARIX	LCTR	CCHECK LINE COUNTER
	JPLS	VERS2	CALL LINES NOT DONE
	MDARIL	_	****** 055 0 1156U 13
VERS4:	007777374		ITURN OFF SWITCH 13
	MDAR'A ARMD	\$LFNS \$LFNS	
	AA AD AA C	VERS4	
	ALBACK	FUNCT	
	ARMD	FUNCT	
	4013	VERSAT	
VISEND:	JUMP	•	
	MDARIK	\$S₩91	[WAIT FOR GO AHEAD
	JPAN	••1	(GET 9300 DESTINATION ADDRESS
	MDAR	\$\$\\?1 A9300	COEL AGOO DESILVATION MODIFICA
	ARMD MDAR*H	\$S#82	EGET WORD COUNT
	ARMD	BUTCTR	
	JPSR	\$R9 AFA	[ARITE TO 9300
		- 0	
		A9300	
0.476704		OBL⊀1	
BUTCTR:	JPSR	J ≸FINSH	
	MOIR	VISEND	
ISBA:	•	5	
(SUBREUTIN	KE TO RE-GRAUP		
REGRP:	JUMP	•	
3 -	ARMD!8	RELINE	ISET RELINE INDICATOR
<u>.</u>	JUMP	RECON	ITS RE CON LINE BUFFER
REDONE:	JPSR	\$FI\SH	[REGROUP DATA
	JPSR	FBJ	Furnan Dulu

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ARXOIF

TRESET RELINE

ARMD MDIR'X

RELINE REGRP

RELINE:

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                                                                    DATE
     FSR:
                     JUMP
                     SACE
                                     $SW81
                     ARMD
                                     A9300
                     MDARIH
                                     $SW82
                     ARMD
                                     FSR1
                     JPSR
                                     $R9WFW
                                     -0
                                     A9300
                                     FUNCT
     FSR1:
                                     0
                                     FSR
                     MDIR
     FSDIR:
                     JUMP
                     40AR1F
                                     ST1
                     JPSR
                                     GET93
                     JPSR
                                     FREQD
                     MDARIL
                     007775774C
     DIR2:
                     A'SACM
                                     $LFNS
                     ARMD
                                     $LFNS
                     MDAR
                                     2FIC
                     ALBACM
                                     FUNCT
                                     FUNCT
                     ARMD
                     MDIR
                                     FSDIR
     SL8:
                     JUMP
                    MIRACM
                                     CXLAR
                     ARMD
                                     CXLAR
                     MDIR
                                     SL9
     HS8:
                     JUMP
                     MISACM
                                     HSL
                     ARMD
                                     HSL
                     MDIR
                                     459
     SPe:
                     JUMP
                     NIRACE
                                     LIGHT
                     ARMD
                                     LIGHT
                     CMPA
                                     $SFLG
                     FICE
                                     SP9
     ISUBROUTINE FOR MOVIES
                     JUMP
     MOVIE:
                                     PICS
                                                    ISET MOVIE REGD FLAG
                     ARMDIS
                                     PICS
                                                    [WAIT FOR IT TO BE RESET
                     SACE
                     JPAN
                                     • - 1
                     MOIR
                                     MEVIE
                                                    CRETURN
     ISUBROUTINE FOR PARAMETER UPDATE
     PIU:
                     JUMP
                     MDARIF
                                     IPL
```

GET93

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JPSR

F	C	D	9	7

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MDIR

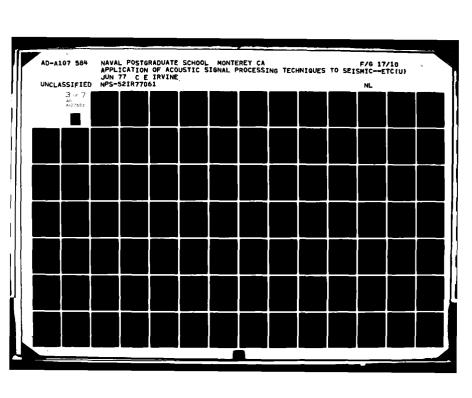
PiU

ISUBROUTINE FOR SIDE LINE DATA UPDATE

SCU:	JUMP JPSR	• READ	CREAD SIDE LINE DATA
	MDARIN MDASIF ARMD	GRP 1 GCTR	(SET GROUP COUNT
	MDAR ! F	SCL1 SD10	[GROUP SCALES
	MDAR IF	RBJF SD20	[INPUT BUFFER
	GORATE ARYD	\$NADAT SD3C	ISIDE LINE BUFFER
SD05: SD10: SD20: SD30:	JPSR	SCLC O O O NPTR	(SCALE DATA
	Y DAR S D R S D D D D D D D D D D D D D D D	GCTR ++2 SCH-1C SCH-1C NPTR SCH-1C SC	CBUMP CBUNT
SD40:	JPSR MDIR	SPJ SDJ	CRETURN

CSUBROUTINE TO GET DATA FROM THE 9300

GET93:	JUMP	•	
	MDARIA	FCAM	[MASK BUT UPPER BITS
	CMSA	GET1	(A REGISTER - BUFFER LOC TO GET1
	MAAR	\$\$W81	
	ARYD	A9300	
	HISACE	\$SW82	
	ARMD	GET2	
	JPSR	\$ ₽ 5%₹₩	
		0	
		A9300	
GET1:		Э	
GET2:		9	187



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MOIR GET93

FSP93

FSP93

(SUBROUTINE TO JPOATE SIDELINE SPOT

SPU:	JJMP	•	
	MDAR	GRP	CGET ADDRESS OF SPOTS
	MPYL	VPTR	
	0		
	ARRS	1	
	YDASIF	TACANE	
	ARMD	SDJ3	
	MDASIF'N	1	CRESTORE EDL
	ARMD	S0J4	
	JIRACE	SCJ4	
	MDAR'S'H	Ci	
	ARMOII	5004	
	MOARIN	LIGHT	CSPST_ITE SPTISM
	AVIR	SPJ	(NO. RETURN
	PACE	32P	IGET SPOT COUNT
	MDX81F	1	
	JPLS	•+3	
	MDARIN	NSL.	
	JÜ∽p	1+2	
	MDARIN	382	
	MDAS'F	1	
	ARMD	SCTR	
	MDARIF	SPST-1	CSET ADDR OF SPOTS
	ARMD	SPTR	
SCU1:	MDARIF	BNADAT	IGET SOURCE ADDR
	X'I'SACP	SPTR	
	ARMD	SDJS	
	JPSR	CBVEM	[TRANSFER SPOT DATA
SDU2:		0	
SDU3:		Ó	
		INICE	

FSP93 ₩	VERSION 11 REV	ISION B CREATED	OF JUN 66 DATE
•	I'RACM A'RACM I'CMRA	SDJ3 *1 SDJ3	(MAKE FIRST POINT A MOVE
	MDAR MDAS	SDŪ3 IWIDE	SCOR FERENCES
	ARMD Marix	SDU3 GC19	CBUMP CBUNT .
	JPLS	SDUI	COET NEXT SPOT
	MDAR 1H ARMD 1	C1 SDJ3	CTURN BN EBL BIT
	MDAR'I MDAR'A'H ARMD'I MDIR	50J4 *1 50J4 5rj	CLINK SPOTS TO LINE CREMOVE PREVIOUS EOL
SQU4:		0	
(SUBROUT I V	E FOR LINE DATA	UPDATE	
LDU:	JUMP	•	
	JPSR	READ	CREAD NEW STACK
	NIACM	GRP	CRESET GROUP COUNT
	MDAS'F	1	
	ARMO	GCTF	ISET UP GROUP SCALE
	MDARIF	SCL1	ISE! JP SROUP SCALE
	ARMD	SCLN	(SETUP CURRENT INPUT GROUP
	MDARIF	RBJF CRBUF	(SEIO- CORREAL TANGE GROOM
	ARMD	WBUF	ISET UP WERKING GROUP BUFFER
	MDAR ARMD	COBUF	tati at with a diam but the
LDU1: SCLN:	JPSR	SCLD	ISCALE AND UPDATE GROUP DATA
CRBUF:		o o	
CDBUF:		Š	
		VPTR	
	MDAR'X	GCTR	CAUMP GRAUP COUNT
	JPLS	•+2	
	AMUL	L DU2	(END 9F GROUPS
	MDARIX	SCLN	(GET NEXT GROUP SCALE
	SACM	YPTR	
	MDAS	CRBUF	CGET NEXT GROUP INPUT
	ARMD	CRBUF	
	MDAR	APTR	
	MDAS	CDBUF	IGET NEXT LINE GROUP
	ARMD	CDBUF	
	JUMP	LDJ1	ISCALE NEXT GROUP

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LDU2:	MDAR	CLPTR	(BUMP LINE POINTER	
	MIRICACE	1		
	ARMO	CLPTR		
	JPAN	•+2	CCHECK LINE BOUND	
	JUMP	LDJ3	[9<	
	ARX8'F'H			
	JPLS	•+3	ENST ZERB	
	ARMD	CLPTR	CRESET POINTER TO ZERO	
	JUMP	FD73		
•	MDAR	LINE		
	MJASIFIN	1		
	ARMD	CLPTR		
LDU3:	B' CMRA	NEAL	ISET NEW LINE FLAG	
	MDAR	NEWL	CHAIT FOR IT TO BE RESET	
	JPAN	• - 1		
	MOAR	DGRP	CGET ADDR BE PBP ENTRY	
	MDAS	CLPTR		
	ARMO	TEMP1		
	MDARII	TEMP1	CSAVE POP ENTRY	
	ARMD	TEMP2		
	SACE	CLPTR	CUPDATE DISPLAY	PBINT
	ARMD	*CLINE	en en entre	
	MDAR	NBUF	CSMAP ENTIES	
	I'CMFA RACM	TEMP1		
	ARMD	TEMP2		
LDU4:	MOAR	WBUF DGRP	CREMOVE HIDDEN LINES	
2004.	ARMD	70 <i>3</i> 22	THE AVE HIDDEN LINES	
	JPSR	REMAR		
	JPSR	GSP8T		
	MDAR	TIME	SYIT STACTU	
	MDAE	FTIME		
	JPSR	TIMED		
	ARX91F	1 1 100		
	ARMD	WAIT1	CRESET WALT FLAG	
	MD [R	LDŮ		
(SUBRBUTI)	E FOR FREQ BAND	UPDATE		
FBU:	JUMP	•		
	MDARIN	LINE	CRESET LINE COUNT	
	MDAS'F	1		
	ARMD	LCTR		
	MDAR	WGRP	EGET CURRENT LINE PTR	
	MDAS	CLPTR		
	ARMD	CWPTR		
	SACE	WGRP	IGET LAST LINE PTR +1	
	SACM	LINE		
mm. A .	ARMD	LPTR		
F9U1:	I'AACP	CWPTR	IGET DATA BUFFER	j
	ARMD	CWBUF	44.00.00 00.00	Ì
	JPSR	READ	CINPUT DATA	j
	JPSR	\$FINSH 191		ł

c	c	p	q	4
7	_	r	"	3

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MDAR'N GRP
MDAS'F 1
ARMD GCTR
MDAR'F RBUF
ARMD FRBUF

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FBU2: FSCLN: FRBUF: CWBUF:	MDAR'F ARMD JPSR	SCL1 FSCLN SCLD O O NPTR	
	MDAR'X JPLS JUP MORR'X MOAR MOAR MOAR MOAR MOAR MOMAR MOMAR MOMAR MOMAR MOMAR	G • # B P P P P P P P P P P P P P P P P P P	
F3U3:	YOUNGER YOUNGER YOUNGER ARMAR	P P P P P P P P P P P P P P P P P P P	CAUMP BUFFER PTR LEND OF BUFFER LNO, CONTINUE LYES, RESET POINTER LOUMP LINE COUNT CREMOVE HIDDEN LINES LRESET WORK BUFFER
[SUBRBUTI	NE TO SCALE IN	PUT DATA	
SCLD:	JUMP MDAR ! L MDAR ! A ARMD	• M1 SD3	CRESET MOVE INSTRUCTION
	MDAR†I ARMD	SCLD SCLA	CGET ADDRESS OF SCALE
	MDAR'I'X MDAS'F'N ARMD	SCLD 1 18	[GET INPUT BUFFER

r, p93	VERSION 11 REVI	SION & CREAT	ET AC A6 NUL 60 CE
•	YDAR'I'X MDAS'F'N	SCLD 1	[GET BUTPUT BUFFER
	ARMD MDAR!I!X	9B SCLD	[GET WORD COUNT
	ARMD	TEMP	
	MDAR'N'I	TEMP	
	MDAS'F	1	
	ARMD	LCTR1	
SD1:	MDAR'I'X	18	(SCALE INPUT DATA
	MPYL'I	SCLA	
	O ARMD	TEMP	[CLECK FOR OVERFLOW
	MIBACH	YMAX	•
	JPAN	•+3	•
	MDAR	YMAX	
	JUPP	SDZ	
	MDAR	TEMP	
505:	ARRS C	12•	CSCALE DATA
	MDAR'A	YMASK	[MASK SCALED DATA
	ARMD	TEMP	
	MDAR'N	YMASK	[MASK BUT PREVIBUS VALUE
	MDAR'I'X'A	98	CUPDATE CRNT VALUE
	MDAS	TEMP	[SET DRAW/MEVE BIT
SC3:	O ARMD'I	98	Carl Dawn Car Dil
	AKTUTI	Jo	
	MDARIL		[SET DRAW INSTRUCTION
	MDAR19	C1	
	ARMD	SD3	
	MDARIX	LCTR1	TPUBD CREW AMUD
	JPLS	SD1	BUZITZES CZAS
	X'RICE	SCLD	CRETURN
YMAX:	37777777		
YMASK:	77776		
(SUBROUTIN	AC WEW DASP OF B	TA	
READ:	JUMP	•	4
	MDARIK	\$SWC1	CHAIT FOR NEW DATA
	JPAN	• = 1	
	MDAR'F JPSR	RBJF GET93	
	JPSR MDIR	READ	
	אוטני	TEAD	

ISUBROUTINE TO SAITCH DISPLAY BUFFER

SWITCH:	JUMP		
	MOAR	#NBUF	** *** **
	JPAN	•=1	CHAIT IF LAST NEW BUFF NOT HANDLED
	JPSR	MBVED	
		ABLK	
		\$GR₽0	
		LINE	
•	40 AR 1 F	∌ G₹PC	
	ARMO	#GRP	
	47ARIF	∌GRP1	•
	CMFA	JG₹P	
	BIRACE	ALTS	
	ARMD	ALTB	
	JPAN	SWIT	
	JPSR	CAVBM	
	U: Ui.	BBLK	
		\$GRP1	
		LINE	
	MDAR ! F	#GRP0	
	ARND	20450 2045	
	MDARIF	5GRP1	
	ARMD	भ ें उ र्ज ≱त्र46.7	
SWIT:	ARMDIB		
SW11.	7525 Adabid	\$NBUF Gerr	
	J#\$4 M 212	GSP9T Switch	
ALT3:	MDIR 2525252525	SWITCH	
ALID.	<u> </u>		
CSUBRBUTINE	TO REMOVE HIDDE	IN LINES	
REMOF:	JUMP	•	ISINGLE LINE REMOVEAL ENTRY
	ARYDIB	LAPT	(SET SINGLE LINE PPTION
	JUMP	RE44	
PEMBV:	وباران	•	COMPLETE REMOVAL ENTRY
W V · ·	ARXEIF	•	ICLEAR SINGLE LINE FLAG
	ARMO	LOPT	by the term of the second particles are the second
		~ ·	
CRESTORE DR.	AN BITS		
	MOARIN	LINE	CRESET LINE COUNT
	MDASIF	1 1 45	THERE I FIVE COOK!
	ARMD	LCTR	
REM1:	MDAR	RGRP	EGET CURRENT LINE ADDR
751.1.	MOASIN		FORT COUNTRY FIRE HOUR
		LCTR	
	ARYD MARTI	CADR	
		CADR	
	ARNO	CADR	
	MARIN	GRP	
	MDASIF	1	
	ARMO	GC†₹	
		,	105

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REM2;	MDARIN MDASIF ARMD MDARII MDARIA ARMDII	PTR 2 PCTR CADR M1 CADR		CRESET POINT CSKIP FIRST		
REM3:	MDAR'I MDAR'O ARMO'I MDAR'X JPLS MDAR'X JPLS JUMP MDAR'X JUMP MDAR'X JUMP MDAR'X JPLS	CADR C1 CADR CCTR REM3 GCTR ++3 CADR CADR CADR TEM1		COMP LINE CO	W BIT COUNT COUNT S TO SKIP FIRST PTR	
ISET UP F	PRINTER ADDRESS	;				
REM4:	MD AR ARMD	CLPTR RPTR		CGET CRNT LI		
₹EM5:	ARMD MDAR ARMD	TPTR XINC XBFF		CRESET TEST (EGET SPACING CINITIAL OFF)	IN PHINTS	
	ARXOIF MDAS ARMD ARMD	LOYN YINC YSFF		(EXTEND SIGN		
	MDAR MDAS ARMO MDAR!I MDAR!A ARMD	RPTR RPTR RBLK RBLK RADR RADR		(SET UP REFE	RENCE DATA ADDR	
₹€%6;	MDAR'X MDX8 JPLS ARMD	7978 LINE •+2 7979		[BUMP TPTR M	BOULB LINE	
	SACP 9×CP	CLPTR		CHUBRA BONES	THE LOOP	
	JPLS	REM7		[NO - PROCES	S LINE	

FSP93	VERSION 11	REVISION B CREAT	TED 06 JUN 66 DATE
•	YDAR AIR MDAR'X MDXO JPLS	LOPT REMOF RPTR LINE •+2	LYES - IT IS SINGLE LINE SPTISH LYES - DONE LBUMP RPTR MODULO LINE
	ARMD MDAR MDAS'F ARMD	9919 9919 1 Temp	CEND OF REFERENCE
	MD X B JPLS ARMD	LINE •+2 TEMP	באוש פענכפאן
	MACM BXCM JPLS	TEMP CLPTR •+2	CHO - GET NEXT REFERENCE LINE
	MDIR MDAR JUMP	₹ <u>5</u> 467 ₹₽14 ₹ <u>6</u> 45	(FUT3F)
₹547:	MDAR MDAS ARMD MDAR'I MDAR'A ARMD	7197 7527 7187 7187 7087 7087	IGET TEST DATA ADDR
	R Z P T S S Z P E D P D R R Z P T S S Z P E D E D E D P D R R R R R R R R R R R R R R R R R	X0FF •+2 •+3 X0FF C1 •+2 •+2 TP1	IGET ABSOLUTE OFFSET DISTANCE
	R S NP R B S P R S N S P R B S P R B N S P R B N S P R B N S P D P D R D D D P D R D P D R D P D R D R	71 TP1 •+2 REM20 GRP 1 •+2 REM2 TP1 REM8 TP2 TP2 TP2 L1 TP1	[CHECK OFFSET DISTANCE [%ITHIN FIRST GROUP [NO [YES, TO TEST POINTS [ONE GROUP OPTION [NO [YES, DONE [WITHIN FIRST GAP [YES, BUMP TP2 PASS GAP [RESET TP1

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VERSION 11 REVISION 5 CREATED 06 JUN 66 DATE

JUMP

E993

REM20 [T9 TEST PDINTS

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ESB33	VERSION 11	REVISION & CREATED	STAC 66 PUL 6C
₹E™8 :	MDAR VAROUP VAROUP VAROUP VOAS	73 1P1 7EM9 TP1 GAP	(WITHIN SECOND GROUP (NO (YES, RESET GAP
₹Ε™9:	YDAS ARMD JUMAR JUMAR JUMA JUMA JUMA	C1 TP1 REM20 GRP 2 *+2 REM25	CAS Dave
	7048 7045 7045 7045 407 404 704 704	74 TP1 REM10 TP2 TP2 L2	CHITHIN SECOND GAP [NO EYES, BUMP TP2 PASS GAP CHESET TP1
REM10:	A D D D D D D D D D D D D D D D D D D D	TP1 REM20 R5 TP1 REM25 TP1 GAR	CHICA TEST POINTS [NITHIN THIRD GROUP [YES, DONE [YES, RESET TP: [DOUBLE GAP
	40 AS AR 40 JJ 46	GAP C2 TP: REMEC	[13 TEST P9]VTS
≈EM11:	MOX86 MOX85 MOX86 MOX86 MOX86	TP1 L1 REM12 GRP 1 •+2	(SUMP TEST POINT 1 [COMPARE FIRST BREAK POINT [NO [YES, CHECK ONE GROUP OPTION [NO
	AMUL ABAU AMUU	REM25 PGAP TP2 TP1 REM20	CYES, DONE [ADVANCE TPZ [T9 TESET P9[NTS
4EW15:	MDAR MDXB JPLS MDAR MDXB1F	TP1 L2 REM13 GRP 2	COPMARE SECOND BREAK POINT THO TYPES, CHECK THO GROUP OPTION
	JPLS JUMP JPSR	•+2 REM25 PGAP TP2 TP1	CYES, DONE CYES, DONE CPT BOUNDED
REM13 ;	JJMP MDAR MDX8	REMPC TP1 L3	TTS TEST PRINTS COMPARE LAST BREAK PRINT COMPARE LAST BREAK PRINT

Ecb33

VERSIEN 11 REVISION B CREATED D6 JUN 66 DATE

JPLS JUPP

•+2 RE425

EVES. Dave

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S TRIES TEST POINT 2
               X ' SACE
                                TP2
                                               COMPARE FIRST BREAK POINT
               BKCF
                                L1
                                REM14
                                               CNO
               JPLS
               SACE
                                TP1
               MISACH
                                CI
               DMFA
                                TP1
                                PGAP
                                               [ADVANCE TP1
               JPSR
                                TP1
                                TP2
                                               [TO TEST POINTS
                                REM20
               JUMP
                                               COMPARE SECOND BREAK POINT
REM14:
               SACE
                                TP2
               BXCH
                                LS
               JPLS
                                REM20
                                               IND, TO TEST POINTS
               MDAR
                                TP1
               VIZACE
                                Cl
               ARMD
                                TP1
                                PGAP
                                               [ADVANCE TP1
               JPSR
                                TP1
                                TP2
               JJEP
                                REM20
ISUBROUTINE TO ADVANCE TEST POINTS PASS GAP
               JUMP
PGAP:
               I'RACM
                                PGAP
                                               IGET ADDR OF TEST POINTS
               ARMO
                                TEST1
                                PGAP
               X'I'SACP
               CMPA
                                TEST2
                                               TOUMP PASS GAP
               MDARII
                                TEST1
               ZACT
                                GAP
                                TEST1
               ARMDII
               FACE
                                               [CHECK PASS BREAK POINT
                                L 1
                                TEST1
               A'I'ZACM
               JPAN
                                               [YES
                                • +5
               XISICE
                                PGAP
                                               CNO. RETURN
               SACE
                                GAP
                                               TCHECK PASS GAP
               JPAN
                                GAP1
                                               [YES
               MIZACM
                                               ETAILER TRUUCA LEAT
                                C1
               I 'ZACM
                                TEST2
               I 'CMSA
                                TEST2
               MDAR
                                L1
               I 'GMFA
                                TEST1
               X'SICH
                                PGAP
GAP1:
               SACM
                                L2
                                               ICHECK PASS SECOND BREAK POINT
               I'V'ZACM
                                TEST1
               JPAN.
                                               [YES
                                •+2
               XISICH
                                PGAP
                                               VEUTER . CAS
                                SAP
                                               [CHECK PASS GAP
               SACE
               AVIRIX
                                PGAP
                                               CNB. RETURN
               MIZACH
                                Ci
                                               CADJUST TEST POINT
               112ACP
                                TEST2
               I 'CMFA
                                TEST2
               SACE
                                L2
```

TEST1

201

ARMD'I

Eca33

VERSION 11 REVISION & CREATED 06 JUN 66 DATE MDIR'X PGAP

P93	VERSION 11	REVISION 9	CREATED	70 JUN	66	DATE
REM20:	MDAR MDASIN JPAN MDAR MDASIN JPAN	L3 TP1 REM25 L3 TP2 REM25		(CHECK	LINE '	TERMINATION
	MDAR JPAN MDAR MDAS ARMD MDAR JUMP	XOFF REM21 TP1 TADR TEST1 TP2 REM22		IDETERM IQUADRA IQUADRA IOFFSET	NT 3	
REM21:	MDAR MDAS ARMD MDAR	TP2 TADR TEST1 TP1		COFFSET	REFE	RENCE LINE
REM22:	MDAS ARMD	RADR TEST2				
	TA I A A A A A A A A A A A A A A A A A A			CGET TE	SET VA SET VA SESET SEE VAL RE VEV PERA W	XT POINT LJE CE VALUE UE T POINT E POINT BIT
RE™25;	MDAR MDAS ARMD MDAR MDAS ARMD MDAR'I MDAR'A	X0FF X1NC X0FF Y0FF Y1NC Y0FF RBLK MADR		(BUMP S		SPACIVG
	ARMO JUMP	REM6		EDS NEX	XT LIN	ŀΕ

£coà3	VERSION 11	STAG 66 PUL 66 CREATED 6 DATE	P#
LSPT:	0	ISINGLE LINE OPTION INDICATOR	
CADR:	0	CURRENT LINE ADDR	
RPTR:	0	TREFERENCE LINE PRINTER	
TPTQ:	Ö	CTEST LINE PTR	
XOFF:	C	[X+9FFSET	
Y8FF:	Ö	[Y-OFFSET	
RBLK:	0	[REFERENCE BLOCK PTR	
TSLK:	0	ITEST BLOCK PTR	
PADR:	0	REFERENCE DATA ADDR	
· TADR:	0	CTEST DATA ADDR	
TDATA:	0	CTEST DATA	

STRIBG LATETS

NCTR: NREF: XINC: YINC: TP1: TP2: L1: 00000000000000000 L2:

85: R3: **94:**

R5: TEST1: TEST2:

CSUBRBUTINE	FOR AXES RAT	REITAT	
ROT:	JUMP	•	
	MDAR	STVCDC	CREAD DIAL C
	ARRS	1	ISCALE FOR +/- 90 DEG IN RAD
	ARMD	TEMP	[SAVE IT
	MDAEIN	LRST	CDIFFERENCE OF LAST SETTING
	ARMD	TEMP1	
	JPAN	•+2	[GET ABS VALUE
	JUMP	ROTO	
	ARXO'F		
	MIBACM	TEMP1	
RSTC:	MDAEIN	DZBNE	ISFF DEAD ZONE
	AVIR	391	END, RETURN
	MDAR	TEMP	SUPDATE LAST SETTING
	CMFA	LR9T	
	ARAR'F'H		IGET SIN AND COS
	AIRACM	MADR	
	JPSR	ANGLE	
	ARARIFIN		
	ALRACE	MADR	
	CMFA	LOYN	
	MIRACH	LINE	ITRANSFER GROUP DATA
	MDASIF	1	
	CMFA	LCTR	

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•	•

Edb33	VERSION 11	REVISION B CREA	66 PUL 60 CET	DATE
२९७ ७:	MDARIN MDAS ARMD MDARII ARMD	LCTR DGRP LPTR LPTR IB	(GET BLOCK AD)	OR .
	MDARIN MDAS ARMD MDARII ARMD	LCTR AGRP LPTR LPTR 58	CGET DESTINAT	ION BLOCK
	MDAR MPYL O ARRS	NPTR GRP 1	ISET WORD COU	NŢ
19: 93:	ARMD JPSR	PCTR MBVED 0 PCTR	CTRANSFER BLO	cĸ
	MDAR'X JPLS	LCTR R9T1	eo anij emueo anij txan eco	UNT
	MARDAR ARSAR APPSAR JPSAR JPSAR MOD MOD AR	WGRP RGRP REMBV CDXOY SWITCH CBLK WBUF	CREMOVE HIDDE CSET DXDY TAB CSWITCH DISPL CRESET WORKIN	LE AY BUFFER
<u>(</u> SUBR e utin	MOIR	RÖT POT LIGHT SEARCH		
SLADJ:	PRSOS PRO NE NA AND NA	• GRP 1 •+3 •+2 •GRP 1 •CTR	TRESET SPOT C	TALE
	ATMARIF ATMARI	TEMP2 CS1-1 SLAD6 LP1-1 SLAD7 EP1-1 SLAD8 HARM1-1 SLAD9	EADDR OF CENT EADDR OF LEAD EADDR OF END EADDR OF HARM 206	PEINT

FCP	93
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VERSION 11 R	REVISION B	CREATED 06 J	UN 66	DATE
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	MDARIF	\$TVCDA	IGET DIAL ADDR
•	MDAS'F'N	1	a water of a common of the second
	CMPA	SLADB	
	MDARIF	SPBT-1	LADD OF SPOT WORD
	ARMD		LADO DE SEUT WORD
	MDARIF	SLAD4	
		LSP1-1	TO THE POST OF THE PROPERTY OF THE PARTY OF
	ARMD	SLAD12	[SAVE FWA+1 OF LAST SPOT DIAL VALUE?
	ARX8'F		
	ARMD	SLAD13	TRESET NEW DIAL VAL FLAG
5SL:	MDARTITX	SLAD3	[GET DIAL READING
	ARRS	1	Section 1. And the contract of
	ARMD	TEMP1	CSAVE IT
	MDAEINTITX	SLAD12	GET DIFF. WITH LAST TIME
	U A A C	•+2	IGET ABS. VAL OF DIFF
	JUMP	•+2	
	ARAR'F'N		
	MDAE'N	DZBNE	COFF DEAD ZONE
	JPAN	• • 4	IND, GET NEXT ONE
	ARMDIB	SLAD13	LYES , SET FLAG
	MDAR	TEMP1	IGET DIAL READING
	ARMDII	SLAD12	ISAVE FOR NEXT TIME
	MDARIX		
	- · · · · · · · · · · · · · · · · · · ·	GCTR	COUMP SPOT COUNTER
	JPLS	5SL	SUUMP IF MORE
	MDARIN	SLAD13	CELSE CHECK NEW VAL FLAG
	ANIR	SLADJ	CRETURN IF NO UPDATE REGO
	YDAR	TEMP2	CELSE RESET SPOT COUNTER
	ARMD	GCTR	public touch a at damit .
	MDARIN	ST9G	[T9GGLE
			LIGUILE
	ARMO	STEG	
	MOARIF	LSP1-1	IGET FWA-1 OF CRNT DIAL VALS
	GMPA	SLADB	(SAVE IT
SLADO:	X'I'RACM	SLAD3	IGET DIAL READING
	MOAE	9FSET	ESCALE READING
	ARAR'F'H	- -	
	MPYL	VPTR	COMPUTE NO. OF POINTS
	5	Will N	
	ARAR'F'H		
		*****	Antenna a de la compania del compania del compania de la compania del compania del compania de la compania de la compania del compani
	ADAR'A	MADR	IMASK LOWER SIGNIFICANCE
	ARMD	TEMP	CSAVE IT
SLAD1:	X'I'ZACM	SLAD7	[ADD LEAD PRINT
	ARMD	TEMP1	क्षा स्थान व्याप्त स्थापन स्थापन
	MOAS	IWIDE	
	ARMD	TEMP2	•
	MIX'I'SACM		PAUPAY LEUR BRILLS
		SLAD8	CCHECK LINE BOUND
	JPAN	•+2	
	JUMP	SLAC5	

73	VERSION II R	EVISION B CREAT	ED 06 JUN 66	DATE
SLAD2:	MDAR ARMD'I'X MDAR ARRS MDAS ARMD'I'X	TEMP1 SLAD4 IWIDE 1 TEMP1 SLAD6	ISET CENTERS	
-	YDAR JPAR X JPAR JPSR JPSR YDAAN JSIR	HSL SLAD10 GCTR SLAD0 GSP0T FREGD \$AUXD SPU SLADJ	CHARMONIC OP CEND OF GROUING, NEXT COIDE LINE OF COIDE SIDE CRETURN	P PTION
SLAD3: SLAD4:	0			
SLAD5:	MDARII MDASIN ARMD JUMP	SLAD8 IWIDE TEMP1 SLAD2	TZ CRAH TEDI	g D
SLAD6: SLAD7: SLAD8: SLAD9:	0 0 0			
SLAD10:	X RSPRSSRSDPALAAMM DDDDDDDDAAMM DDDDDDDDDDAAMM MDDDDAAMM MDDDDAAMM JMAAJ	GCTR •+2 SLAD11 GRP 1 SLADH TEYP IPL TEYP SLAD1	(SEE IF GROU (NO, DO HARM (YES, GET DI (ADDED FIXED	BNIC AL A
SLADH:	MDAR MDAS'N'I'X MPYL O	HC SLAD9 NPTR	(C8*PJTE (1-	H)*NPTR/2
	ARRS ARMO MDAR MBYL'I	11. O HB Temp SLAD9	[GET DIAL A ECHMPJTE H+A	READING
	ARRS O	10.		

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2 STOR (H-1)+AH STUPPES 805

F 0.093	9	VERSIEN 11	REVISION B	CREATED	06 JUN 66 DATE	
		JPAN	•+2		ISET TO ZERO IF NEGATIVE	
		JUMP	•+2			
		ARXBIF				
		ARMD	HA			
		MDASIN	VPIR		CLIMIT TO NPTR	
		JPAN	•+3			
		MDAR	VPTR			
		JUMP	SLAD1			
		MDAR	HA			
		JJMP	SLAD1			
	SLAD11:	JPSR	GSPOT			•
		JPSR	FREGD			
		FACM	CXLA		ISIDE LINE SPTISM	
		JSAN	SPU		CUPDATE SPOTS	
		RICK	SLACU			
	SLAD12:	၁				
	SLAD13:	å				
	HA:	0				
	48:	0				
	HC:	1000				

PX

(SUBROUTINE TO MOVE THE SPOTS

GSP8T:	JUMP MDAR JPAN MDAR'F JUMP	• ST#G •+3 SPL+1 •+2	CHET TOUGHE LUUMP IF WANT 1SPOT SET LELSE OSPOT SET
	MDAR'F ARMD ARMD MDAR'N MDAS'F	1SPL-1 OPTR SPLL LINE 1	[SAVE DISPLAY PTR [AND FOR DISPLAY PROG. ALSO [RESET LINE COUNT
	ARMD MDAR MDAS ARMD	LCTR DGRP CLPTR GSP5	IGET LINE DATA ADDR
	MDAR MDAS ARMD	OGRP LINE LPTR	IGET ADDR OF LAST LINE
GSPO:	MDAR'F ARMD	SPOT-1	IGET SPOT POINTER
	MDARIN MDASIF ARMO	NSPOT 1 GCTR	(GET SPOT COUNT
35P1:	MDAR'I'X GMFA	DPTR GSP3	(SET JP DISPLAY ADDR
30. 21	I'RACM X'I'RACM DMFA	GSP5 SPTR GSP2	ESET JP SPST DATA
GSP2: GSP3:	J₽SR	MBVED O	(XFER SPOT DATA
	IPACM APACM IPOMSA	IWIDE GSP3 M1 GSP3	(MAKE 1ST WORD A MOVE
	MDARTX JPLS	GCTR •+2	(SUMP COUNT
	JUMP MDAR MDAS JUMP	GSP4 GSP3 IWIDE GSP1	CONE EDUMP TRANSFER ADDR
GSP4:	MDAR MDAS'F'N ARMD MDAR'I MDAR'G'H ARMD'I	GSP3 IWIDE 1 TEMP TEMP C1 TEMP	(SET E9L

F, 1993	VERSION 11 REV	ISION B CREATE	STAC 96 PUL 60 CE
	MDARIX	LCTR	LEUMP FINE COUNT
	JPLS	e + 4	
	YDAR ABMD	SPLL SPLL	(STORE ADDR OF SPOT DISPLAY LIST
	ARMD MDIR	SPLP GSP8T	
		45 7 0 7	
	MDARIX	GSP5	CBUMP LINE PTR
	вхсм	LPTR	
	JPLS MDAR	35P0 3638	CULBEA GARAJ
	ARMD	DGRP GSP5	CPCDFA MAPK)
	JJMP	3SP0	
GSP5:	o		
(SUBROUTIN	E TO ADJUST AMPL	ITUDE SCALING	
SCADJ:	JUMP	•	
	48~0.0	TVEC	ECLEAR DON'T FLAG
	NIFACE	GRP	CRESET LINE COUNT
	ADAS'F	1	
	ARMD	GCTR	fort course and about
	MOARIF MOASIFIN	\$TVCDD 1	IGET CONTROL DIAL ADDR
	ARMO	SCA	
	MDARIF	SCL1-1	CADDR OF SCALES
	ARMD	SCLN	
	MDARIF	LSC1-1	CADOR OF PREVIOUS SCALE
	ARMD	LSCN	
SCAD1:	YDAR'X	SCLN	CBUMP ADDR OF SCALES
	X'l'RACP	SCA	CREAD CONTROL DIAL
	ARRS	1	44.00m - 4
	ARMD MDAEINIIIX	TEMP LSCN	[SAVE IT
	CMSA	TEMP1	GET DIFFERENCE GET ABS VALUE
	JPAN	•+2	(de, 133 /1432
	JUMP	SCADZ	
	ARXOIF		
05.00.	MIGACE	TEMP1	40.55 5.45 40.45
SCAD2:	MDAE!N JPAN	DZSNE	COFF DEAD ZONE
	ARXBIE	SCADB	CYES, SET DOIT FLAG
	ARMD	DENT	tieds of other and
	MDAR	TEMP	CUPDATE PAST SCALE
	1 DMFA	LSCV	
	MDAE	SFSET	(BIAS DIAL READING
	ARARIFIH MDARIA	MADE	
	ARMDII	MADR SCLN	[SAVE SCALE
	•		

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L-593	VERSION 11	REVISION B CREATED	STAC 88 NUL 80 (
SCAD3:	MDAR'X JPLS	GCTR SCAD1	CNEXT SABUP
	PACE EXCE SUPL PUU PUU	D8NT SCAD6 •+2 SCAD4	COMPARE PREVIOUS VALUE USEND IF DIFFERENT UND DIFFERENT
	MDAR ARMD JPSR	\$\$#81 A9300 \$R9#F# ~D A9300 D9NT 1	ISEND DONT FLAG
SCAD4:	MDAR ARMD JPSR MDAR AVIRIX	70907 90406 #FINSH 2007 90400	[UPDATE PASS VALUE
SCAD5:	J¤SR M⊃IR!X	FBU O SCADU	ATAC STACQU CNA SIADE)
SCAD6:	С		
ICHTY:	0	CIMPUT 8 3IT	CODE FROM TTY
	MDAR'I ARMD MDAR'F ARMO ARXD ARXD JPSR MDAR JUMPII'X	ICHTY •+6 TTYIB TTYSR TTYC TTWT 0 TTYC ICHTY	GGET INP-MADE CANTRAL CADE
:EIYTT	JUMP ARMDIL	•	
TTYCC:	MDAR ARRS	0 TTYC 1	
	MDAR'B'K SKUA MDXB'K ARMD MDAR MDIR	1 C2 TTYCC TTYCC TTYIB 213	

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VERSION 11 REVISION B CREATED 06 JUN 66 DATE

MOIR'A 9FTTY MOIR'A MOIR'A 9FTTY MOIR'A MOI				
### ##################################	TTWT:	JUMP	9	
### DEST: TTYBR #### DICTL'A ####################################		MDAR'F ARMD MDAR'F ARMD MDAR ARMD MDAR ARMD MDAR MDAR MDIC'I'8	TT88 TPVT2 TTY8 TPVT1 S39VF 9VFPV S3A	
######################################	TT38:	JPSR'I		
TTYB: UPSR'I TTYBR JJMP'I TTYB TTYBR: C ENT: UMP ARMD'L ENTA: O MDAR ARMD'L ENTO: ENTO: O FPRI MDAR'I ENT ARMD PINPY MDX8'F JPLS ++3	eftty:TPTef:	TTYOF ARMD MOAR'F ARDARI ARACI	N0 AT1+2 AT1 LGP AT1+2 LGP	
JPSR'I TTYBR JUMP'I TTYB TTYBR: C ENT: JUMP O ARMD'L ENTA: O MDAR BVFPV ARMD'L ENTB: O FPRI MDAR'I ENT ARMD PINPV MDX8'F N8 JPLS •+3	338VF:	000		
TTYBR: C ENT: JUMP O ENTA: O ENTA: MARMO ARMO'L ENTB: O FPRI MOAR'I ARMO PINPV MOXB'F MOXB	TTYB:	0		
ENT: AR O'L ENTA: O ARAC ARAC ARAC ENTB: O FPRI MDAR'I ARAC ARAC PINPV MDXB'F M				
ARMO'L ENTA: MAR ARMO'L ARMO'L ENTB: O FPRI MAR'I ARMO PINPV MAR'F MOXB'F	TTYBR:	C		
ENTA: MAR ARCP ARCP ARCP ENT O FPRI MOAR'I ARCP PINPV MOX0'F DELS WHO WE NOW WHO WISH WITH WHO WE NOW WHO WE NOW WHO WAS AND WHO WHO WHO WHO WE NOW WHO WAS AND WHO WHO WHO WHO WHO WAS AND WHO WHO WHO WHO WAS AND WHO WHO WHO WHO WAS AND WHO	ENT:		0	
:07/3 FPTI IPACM VANIT OMEN VANIT OMEN HOW FOR THE OWEN HOW F+• PLS FF	ENTA:	SACM	SVFPV	
	ENTO:	O FPRI MDAR'I ARMD MDX8'F	Λ 0 5ΙΛ5Λ	213

93	VERSIEN 11	REVISION B	CREATED	06 .	אטע	66	STAC
	MOARIF	PINPV					
	ARMO	_3¤					
	UPQ I						
	ATX9 'F						
	ARMD!I'X	ENT					
	X' FICE	ENT					
EXT:	JUMP! I	э					
	MDAR	ENTO					
	ARMD	SVFPV					
	PACE	ENTA					
	PINT	•					
	JJYPII	EXT					
LGP:		DINDA					
AT1:	م-رر	•					
	JPSR	ENT					
		3					
		0					
	MAAR	ENTO					
	CMFA	SBBVF					
	FACE	ENTA					
	CYFA	53A					
	ARXSIF						
	DMSA	ENTS					
	CMSA	ENTA					
	CMPA	SVFPV					
	PINT						
	Z'I'9MUL	TTHT					
cent:	C						
LSCN:	0000						
LSC1:	C						
LSC2:	0						
LSC3:	C						
DZSNE:	3700000						
LR8T:	C						
MSKS#:	77777700						

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Frp93
                                                                      STAC
                  VERSIEN II REVISION B CREATED 06 JUN 66
      CPARAMETER INPUT LIST
     IPL:
                     0
                                      CFIXED SPOTLITE INTERVAL
                                      INJMBER OF SPECTRUM LINES
     LINE:
                     10.
                                      INUMBER OF HARMONIC GROUPS
      SAP:
                     1
                                      INUMBER OFPOINT PER LINE
     NPTR:
                     150.
      VSL:
                                      INJMBER OF SPOT LIGHTS
                     1
                                      ISTARTING TIME IN SECONDS
IFFT UPDATE TIME IN SECONDS
IFREG RESOLUTION
      TIMEC:
                     4000.
     FTIME:
                     32.
     RES9:
                     1000
                                      ISTART OF GROUP 1
     ST1:
                     0
                                      ESTART OF GROUP 2
      ST2:
                                      ESTART OF GROUP 3
      ST3:
                                       THARMANIC FACTOR
      HARY1:
                     1
     -AQ-2:
      IAIDE:
                     10.
      YFRAM:
                     18.
      NSHUT:
                     0
      INTL:
                     0
      INTS:
                     Э
      INTSL:
      INTL9:
      INTX:
                     100
      XGAP:
                     1400
      CPARAMETER BUTPUT LIST
                                      TSPOT LIGHT SPTISN
     LIGHT:
                     -0
                                       CHARMONIC RELATED SPOT OPTION
     -SL:
     FUNCT:
      (LOCAL PARAMETERS
      C1:
      xC:
                                      [2 1/2 INCH X AXES SEFSET
                                       INS Y AXES SFESET
      YC:
                                       (+039 INCH FOR SIDE LINE DISPLAY
                      100
      DELX:
                      7600012000
                                       ISIDE LINE DISPLAY BRIGIN
      SXCYO:
                                       CADDRESS MASK
      MADR:
                     フフフフフ
      C18:
                     25
      M35:
                      -35.
      ~2:
                      - 2
      C9:
                      9.
                      13.
      C13:
                      40
      C43:
      26:
      SESET:
                      5000000000
                                      ISPATLIBHT DIAL SFFSET
      co:
```

C3:

(4: (5: 3

```
r - 093
                 VERSION 11 REVISION B CREATED 06 JUN 66
                                                                  DATE
                    7700777777
     M0611:
     ~1217:
                    7777007777
     M1823:
                    777777077
     M2429:
                    7777777700
     41629;
                    37777
     ~1:
                    - 1
     C1M1:
                    100001
     C16200:
                    16200
     C17:
                    17.
     TLOCAL VARIABLES
                                     [WORD COUNT
     WCTR:
                                     TRUNNING LINE COUNT
     LCTR:
                    0
                                     COURRENT A BLOCK PTR
     ALINE:
                    C
                                     COURRENT B BLOCK PTR
     BLINE:
                    0
                                     IRUNNING GROUP COUNT
     GCTR:
                    0
     XSP:
                    0
                                     CINITIAL DISPLAY BRDINATES
                                     TRUNNING PT COUNT
     PCTR:
                    0
     SBA:
                    0
                                     COXDY TABLE PTR
                                     CINCREMENTAL DX VALUE
     LCXN:
                    C
                                     YC BITIC 3
     LDYN:
                    0
                                     CCURRENT DXDY VALUE
                    0
     VOXY:
     TEMP:
                    0
     TEMP1;
                    0
     TEMP2:
                    0
                                     CDESTINATION ADDR PTR
     BBA:
                    C
                                     CUPDATE TIME
     TIME:
                                     LINTEGER VALUE TO BE CONVERTEED
     INTGT:
     FCN:
                    0
                                     [ STATUS
     SCTR:
                    0
                                     [ COUNT
     SPTR:
                    0
     cs1:
                    0
                                     ICENTER SPOTLIGHT POINT
     cs2:
                    0
                    0
     CS3;
                                     CENTER SPOT FRES
                    0
     CF1:
     CF2:
                    0
     CF3:
                    0
     FP1:
                    0
     EP2:
                    Э
     FP3:
                    0
     LP1:
     Fb5:
     LP3:
                    0
     WAIT1:
                    0
```

"EKL:

```
FCP93
                 VERSIAN 11 REVISION B CREATED 06 JUN 66
                                                                    DATE
                                     CINPUT DATA BUFFER
     RBUF:
                    L9C(++150+)
     SCL1:
                     400
                                     [GROUP 1 SCALE
     SCL2:
                     400
                                     2
                                             3
     SCL3:
                     400
     SCLA:
                     ٥
     DTXY:
     WDXY:
                     0
     LDXDY:
                     490(+16+)
     TDXDY:
                     L9C(++16+)
                                     EWORKING BUFFER ADDR
     CAPTR:
                     Ç
     NPAR:
     TSFLG:
     T1:0; T2:0; T3:0; T4:0; T5:0; T6:0; T7:0; T8:0
     GGRP:
                                     IBUFFER ADDR FOR LINE REMOVAL
                     0
      WGRP:
                     0
                                     CHERK GROUP
     DGRP:
                     0
                                     CCISPLAY GREUP
     LSP1:
                     0
     LSP2:
                     0
     LSP3:
                     0
                     0
     SPLL:
      SPLP:
                     0
                     0
     STOG:
     creg:
                     0
                     4005
      1SPL:
                                     151
                     MD05
                                     152
                                     153
                     MD05
                     MDC5
                                     4 ب ـ
                     4005
                                     155
                     4005
                                     156
                     4005
                                     157
                     4005
                                     158
                     4005
                                     159
                     4005
                                     1510
      SPL:
                     4005
                                     S1
                     4D05
                                     S2
                     4D05
                                     S3
                     4005
                                     S4
                     4005
                                     S5
                     MD05
                                     56
                     4005
                                     37
                     MD05
                                     S8
                     4005
                                     S9
```

S10

4005

```
20093
                 VERSION 11 REVISION B CREATED 06 JUN 66
                                                                   DATE
     151:
                    LOC(.+30.)
     152:
                    L9C(++30+)
     153:
                    L9C(++30+)
     154:
                    L9C(++30+)
     155:
                    L9C(++30+)
     186:
                    L9C(+30+)
     157:
                    L9C(+30+)
     158:
                    L9C(++30+)
     159:
                    L9C(++30+)
     1510:
                    -9C(++3O+)
     S1:
                    49C(++30+)
     S2:
                    L9C(++30+)
     S3:
                    L9C(.+30.)
     S4:
                    L9C(+30+)
     $5:
                    L9C(++30+)
     56:
                    L9C(++30+)
     57:
                    L9C(+430+)
     S8:
                    L3C(++30+)
     59:
                    L9C(+30+)
     510:
                    L9C(++30+)
     DPTR:
     SPAT:
                    L9C(++3)
     ASPST:
     GAP:
                    000
     CLPTR:
     CP1:
                    0
     INTG:
     SCA:
     LPTR:
                    0
     BIAS:
     LCTR1:
     FCT:
                    0
                    L90(++36+)
     SBUF:
     PICS:
                    00
     STARF:
```

49300:

PA

F793 VERSION 11 REVISION 3 CREATED 06 JUN 66 DATE

IDISPLAY BUFFER PTRS

CAPTR: ABLK:	0 Y005 Y005 MD005 Y0005 MD005 MD005 MD005 MD005	CURRENT ABLKA ABLKA5 ABLKA5 ABLKA5 ABLKA5 ABLKA5 ABLKA5 ABLKA9 ABLK10	INPUT BUFFER PSINTER
CBPTR: BBLK:	0 MD055 MD005 MD005 MD005 MD005 MM005 MM005	38.44 38.44 38.44 38.45 38.45 38.47 88.47 88.47 88.47	CURRENT INPUT BUFFER PSINTER
WBUF:	MD05	CBLK	[#87KING BUFFER PONTER
CBLK:	<u> </u>		
DBLK: Ne:	DBLK1 JUMP MDIR	• NB	

EXPUNGE

TITLE TWDIS

CDISPLAY SUBROJTINE FOR ESP EVERSION 2, REVISION C (1/31/75

NSCARRET ENTRY DISPL. CHARS, ECHAR, LALX, LAZC, LA30, EBLLILL5, LL20, LL50, LL70, EULS, LS5, LS5C, EBLT, LTS, FCLH, FC5, FC10, FC30, FC80, FC90, ESLX, LX5, ENDS, AVGON, LCNT, SFLG, LGRP, GRPO, GRP1, LASTL, LPTR, NLINE, GEND, PXY, TOAT, TOAT1, HOUR1, HOUR2, MIN1, MIN2, SEC1, SEC2, F1L1,F1R1,F2L1,F2R1,F3L1,F3R1,S1A,S2A,S3A,S4A,S5A,S6A, \$7A,\$8A,\$9A,\$1CA,\$11A,\$12A,\$13A,\$14A,\$15A,\$16A,F1A,F2A, NSPOT, DOUN, TEMP1, TEMP2, TEMP3, SCALE, NADAT, CLINE, F2L3,F3R2,S53,S12B,F3R4,F1L3,F13,S6B,F3L2,S13B,S15B, F2R3,F2B,S7B,F2L2,S10B,S2B,S14B,F3R3,S8B,F1L2,S3B, S118,CLINE,F3L3,F2R2,S9B,S4B,316E,F2R4,S1B, TONT, NBUF, AUXD, NDXDY, DONT, FNS, LFNS; CARRET CSYMBOL DEFINITIONS

E8LPV=77757; E8VPV=77756; E8SPV=77736; E8MPV=77735; FCLPV=77755

MD05=25000JH; MD06=26000JH; MD07=27000JH; MD10=30000JH; MD11=31000JH

[FOLLOWING GENERATES VALUES (ASCII) FOR THE SYMBOLS: A., B., J., Y., Z. (FOR USE IN CALLS TO P MACRO

ZZZ*101
IREPEAT ZZ,(A,B,C,D,E,F,G,H,I,J,K,L,M,N,8,G,G,R,F,T,U,V,N,X,Y,Z)
ZZN*=ZZZ
ZZZ*ZZZ+1
ENDI
P*=120

IP MACRE FOR BUILDING DISPLAY WORDS FOR THE CHAR. GENERATOR

MACRET P(A1,A2,A3,A4,A5) A1/BJK + A2JB + A5JBJK + A3JBJK + A4JB + O ENDM TWDIS

VERSION 2 REVISION C CREATED 31 JAN 75 DATE

CLECK MACRO TO BUILD LINE FEED AND CARRIAGE RETURN WORD FOR TEXT

MACR91 LFCR P(12,15,0,0) ENDM

DISPL:	JUMP	•	CREFRESH STARTER ROUTINE
	MD11	SCALE	ISET SCALE
	MDICIA	410	ITURN OFF LCG
	MD10	AVGON	[TURN 9N AVG, SCOPE AND CLOCK
	MDARIN	CXUA	(SEE IF NON-AVGD CRNT LINE DISPLAY
	JPAN	01510	CHUMP IF NOT TO BE DRAWN
	MJAR1F	EeLx	CELSE SPECIFY ESL HANDLER FOR IT
	ARMD	EOLPV	
	MDARIL		CLEVIG VES CABLE
	MDC5 ARMD	TACAN VQVB3	
	4907	NOXDY	(SET DXDY
	4006	\$INTSL	ISET INTENSITY
	,500		
	JUMP	01820	
DIS10:	4006	BINTLE	
	JPSR	LALX	[GB SET UP FBR LINES DWG
	M00711	PXY	ISET DXDY FOR 1ST LINE
D1820:			
	MDARIN	\$PICS	[TAKING MOVIES>G
	JPAN	01360	[N9. 39 START REFRESH
	SACE	NSHUT	CYES, GET NO OF REFRESHES SHUTTER
	JPLS	•+2	CHUMP IF ALREADY AT LEAST SHE
	JUMP	D1S40	CELSE THIS JUMP
	висм	\$NSHUT	(BPEN REGO NO OF TIMES YET>G
	JPLS	01850	IND, LEAVE BPEN AGAIN
	MDICIA	9100C	CYES, CLOSE SHUTTER
	SHARIF		[WAIT TILL CLOSED
	MDARIF'A	1000	
	JPLS	• • 2	
	ARXSIF		[WAIT FOR SURE
	ARMOIL	221	

VERSION 2 REVISION C CREATED 31 JAN 75 DATE

THOIS

IS	VERSION 2 RE	VISION C CREAT	TED 31 JAN 75 DATE
	MDARIX	•=1	
	MD X8 ' F	37 20	
	JPLS	• • 2	
	ARX8'F		CRESET NO. OF TIMES OPEN COUNTE
	ARMD	NSHUT	
	MDAR	NERAM	[COMPARE FRAMES DONE
	BXDM	SNFRAM	C WITH NO. REGD
	JPLS	DIS40	CUMP IF MORE FRAMES REGD
	ARMD	NFRAM .	CELSE RESET FRAMES DONE COUNT
	ARMD	\$PICS	[AND MOVIES REGD FLAG
	JUMP	01860	LAND GO START REFRESH
DIS40:	MDARIX	NERAM	LBUMP NO OF FRAMES DONE
	MDICIE	C1000	COPEN THE SHUTTER
	S4AR1F		C WAIT TILL IT IS
	MDAR'F'A	1000	
	JPLS	•+2	
	JUMP	•-3	
	ARXOIF	, J	[WAIT 20MSEC TO BE SURE
	ARMDIL		ENVEL FOLIOFO TO DE DOME
	0		
	MDARIX	• = 1	
	MDX81F	3720	
	JPLS	• = 2	
01850:	MDARIX	NSHUT	(BUMP SHUTTER SPEN COUNT
01560:	MD • D	caunu	COTABL DWG
	MDIR	EBVPV	[START DWG.
	५० १२	DISPL	CRETURN
LALX:	JUMP	•	TROUTINE TO SET UP FOR LINES DA
	ARXSIF		
	ARMO	LONT	CRESET COUNT OF LINES DRAWN
	MDARIN	SFLG	(GET SPOTLITES READ FLAG
	JPAN	•+2	[JUMP IF NO SPOTS
	4066	#INTL	(ELSE SET INT. FOR LINES WITH S
		91 41 C	•
	MDAR'F	ESLL	ISPECIFY ESL HANDLER FOR LINES
	GMFA	EGLPV	
	MDAR	BOTXY	
	ARMD	PXY	(SAVE PTR TO DXDY TABLE
	RACE	LGRP	(SEE WHICH LINE GROUP TO DRAW
		LAZO	[JUMP IF GRBUP 1

THDIS	VERSION 2	REVISION C CREATED	31 JAN 75 DATE
	MDAR F MDAS ARMD	GRPC LASTL LPTR	TELSE GROUP O, GET DISPLAY LIST FA [ADD NO. 9F LAST RECD LIND [SAVE PTR TO LAST RECD'S LIST ENTR
	MDAR1F JUMP	GRPO Labo	[GET DISPLAY LIST FWA AGAIN [GB BN WITH CODING COMMON TO BOTH
LA20:	MDAR'F MDAS	GRP1 LASTL	(GET GROUP 1 DISPLAY LIST FWA
	ARMD MDAR!F	LPTR GRP1	(SAVE PTR TO LAST RECD LINE'S LIST (GET FWA OF DISPLAY LIST AGAIN
LA30:	MDAS ARMD	NLINE GEND	(ADD NO. OF LINES TO DRAW (SAVE ADDRESS OF LOCATION LIST END
	MDAR!I ARMD	LPTR E9VPV	CLOAD EOV PIVOT FOR 1ST LINE
	MDIR	LALX	(RETURN
E9LX:	JUMP	•	(EGL HANDLER FOR NON-AVGD LINE DRA
LX5:	43MD1L 0		[SAVE AR
	MD06 JPSR	€LTVI LALX	(SET INT. FOR LINES W/O SPOTS (SET UP TO DRAW LINES NEXT
	MDAR	LX5	CRESTORE AR
	MD07 1	PXY	ISET DXDY FOR 1ST LINE
	MDIR	E9VPV	ISTART LINE DAG
	JUMPII	E9LX	[CLEAR AND RETURN
EGLL:	JUMP	•	(EBL HANDLER FOR LINES
LL5:	ARMD'L O		[SAVE AR
	MOAR'X MOXO JPLS JUMP	LCNT NLINE •+2 LL50	[BUMP COUNT OF LIVES DRAWN [COMPARE WITH NO. TO DRAW [THIS JUMP IF MORE TO DRAW [ELSE THIS JUMP & ALL DRAWN]

TADIS	VERSIEN 2 RE	VISION C CREATED	31 JAN 75 DATE
	MDAR'X MDXB MPLS	LPTR GEND LL20	IGET NEXT DISPLAY LIST ADDRESS ISEE IF BEYOND LIST END IISN'T, CONTINUE
	APCM NAAC APACM	LGRP •+3 GRPO	IELSE CHECK GROUP'S ID CUMP IF GRP 1 CGET FWA OF GRP O DISPLAY LIST
	JUMP MDAR * F	•+2 GRP1	IGET FWA 8F GRP 1 DISPLAY LIST
LL20:	ARMD MOO7:I'X	LPTR PXY	ISAVE PTR TO GROUPS DISPLAY LIST CSET DXDY FOR NEXT LINE
	MDAR'I ARMD	LPT? EPVPV	CLEAD ERV PEVET FOR NEXT LINE
	MACM MIR I'AMUU	EBVPV EBLL	CRESTORE AR CSTART LINE OPAW COLEAR AND RETURN
LL50:	PACE	SFLG LL70	CHERE IF LINES ALL DRAWN EJUMP IF TO DRAW SPOTLITES
	MD101A MDAR1F ARMD	MC429 E9LT E0SPV	CELSE TURN OFF AVG ESPECIFY EOS HANDLER FOR TEXT
	MDARIF CMFA	TDAT+1 EBWPV	LAST TX3T RET TEVIA WES CAELI
	MDAR!N Uran	#TSFLG •+3	CUCMP IF NOT DWG TEXT INPUT LINE
	MDAR'F ARMD	TDAT1-1 EOWPV	TRELBAD ERW PIVOT
	SACE	LL5	TRESTORE AR
	B'SICE	C10	ESTART TEXT DISPLAY
	JUMBII	EBLL	COLEAR AND RETURN
LL70:	ARX91F QMFA	LCNT	THERE IF TO DRAW SPOTLITES TRESET LINES DRAWN COUNT
	4006	#INTS	ISET INT. FOR SPOTS
	40481F 4240	E9LPV E9LPV	ESPECIFY FOL HANDLER FOR SPOTS
	FACE OMFA	#DTXY PXY 225	(GAVE PTR TO DXDY TABLE

TWDIS	VERSION 2 REVI	SION C CREATED	31 JAN 75 DATE
	MDAR ARMD MD07'I	#SPLP LPTR PXY	(SAVE PTR TO SPOTS DISPLAY LIST [SET DXDY FOR 1ST SPOT
	MDAR!!!X ARMD	LPTR EOVPV	ESET EBV PIVOT FOR 1ST SPOT
	MDAR	LL5	(RESTORE AR
	MOIR	EBVPŸ	[START SPOT DRAW
	JMP'I	ESLL	[CLEAR AND RETURN
501.64	1. 1. 10		450
E8LS:	JUMP	•	(EBL HANDLER FOR SPOTLITES
LS5:	ARMD'L O		ISAVE AR
	MDAR'X MDX8 JPLS	LCNT NLINE LS50	(BUMP COUNT OF LINES DONE (COMPARE WITH NO. TO DO (UUMP IF MORE YET
	MDAR!F ARMD	EBLT EBSPV	CELSE SPOTS DONE, SPECIFY EDS C HANDLER FOR TEXT DRAW
	A CICK	40429	(TURN SEF AVG
	MDARIF ARMO MDARIN	TOAT=1 EGWPV #TSFLG	CLOAD EOW PIVOT FOR TEXT DRAW
	JPAN	++3	IJOMP IF NOT DWG TEXT INCLT LINE
	MDAR'F ARMD	TDAT1-1 EBWPV	IRELOAD ESW PIVST
	MDAR	LS5	[RESTORE AR. BR
	401048 119400	C10 E0LS	[START TEXT DWG [CLEAR AND RETURN
LS50:	MDC7'I'X MDAR'I'X ARMD	PXY LPTQ E8VPV	CSET DXDY FOR NEXT SPOT CLOAD EDV PIVOT FOR NEXT SPOTS
	MAR	LS5	[RESTORE AR
	PICE	ECVFV	[START NEXT SPOT DWG
	JUMP'I	ERLS 326	COLEAR AND RETURN

TWDIS	VERSION 2	REVISION C CREATED	31 JAN 75 DATE :
EBLT:	JUMP	•	CTEXT ESS HANDLER
LT5:	ARMD1L 0		(SAVE AR
	ARMDIB	DDUN	ESET DAG DONE FLAG
	MAAR	L75	CRESTORE AR
	JUMPII	EGLT	CCLEAR AND RETURN
FCLH:	ayUL	•	CFRAME CLOCK HANDLER
FC5:	ARMOIL		[SAVE AR.SR
FC10:	32701L 0		
FC30:	# # # # # # # # # # # # # # # # # # #	TCNT 1 TCNT FC90 \$WAIT1 FC90	CGET CLOCK TICK COUNT COUMP IT COUMP IF NOT TIME TO REFRESH CCHECK NEW LINE WAIT FLAG COUMP IF SET, DON'T REFRESH
	MDAR!N JPAN	JOUN FC90	CELSE GET DRAWING DONE FLAG
	JPSR MDIC181H MDER1A MDIC1A1H	\$TRVC0 C40 M0015 M40	CELSE 39 SAMPLE DIALS AND SWITCHES
	S5A7'F'H MDAR'A ARLS O BRAR'F'8	C7 12.	
	ARRS ARMD MDXB MDAR'A MDAR MDXB ARMD MDAR ARMD	6 FNS LFNS FNS \$FUNCT FNS LFNS	EMATCH 9300 WSRD LENGTH USAVE SWITCHES UDETECT CHANGES OF STATUS USAVE TOOGGLE STATUS ULATCH STATUS USAVE LATCHED STATUS UPDATE PREVIOUS STATUS

THDIS	VERSION 2	REVISION C CREATED	31 JAN 75 DATE
	MDARIN	SNEWL	IGET NEW LINE FLAG
	JPAN	• + 4	CUUMP IF NOT SET
	ARMD	SNEWL	CESLE RESET IT
	ARMD'8	\$WAIT1	(AND SET WAIT FLAG
	JUMP	FC90	[AND DONT DISPLAY, DONT RESET
			C DWG DONE FLAG OR TICK COU
	MDAR	42	CRESET TICK COUNT
	CMFA	TCNT	
	ATX9 'F		
	ARMD	יאטסכ	CRESET DRAW DONE FLAG
	MIRACM	NBJF	[GET NEW BUFFER READY FLAG
	JPAN	FC80	CJUMP IF NOT READY
	ARMO	NBJF	CELSE RESET NEW BUFFER FLAG
	MDARIN	LGRP	CAND TOGGLE GROUP SPECIFIER
	ARMO	LGRP	
FCAO:	JÞSR	DISPL	(G9 START REFRESH
FC90:	SACM	FC5	CRESTORE ARIBR
	MDBR	FC10	
	IteMUL	FCLH	COLEAR AND RETURN

CONSTANTS

AVGBN:	6140074	[AVG, SCOPE AND CLOCK ON
co:	0	
C1:	1	
C10:	10	
C40:	40	
c7:	7	
HINT:	17777	[MAX INTENSITY
M0015:	- 77777√H	
MC429:	377777777	
M1:	-1	
~10:	-1 C	
~11:	-11	
41629:	37777	
~2:	-2	
M40:	- 40	
~1C00:	-1ccc	
c1000:	1000	

```
[VARIABLES
                              INSN-AVGD LINE DRAW DESIRED FLAG
              0
AUXD:
                              CCLECK TICK COUNT FOR DIALS
DCNT:
              0
                              [REFRESH DONE FLAG
DDUN:
              0
                              ISWITCH STATUS HOLDER
FNS:
                              CPREVIOUS SWITCH STATUS
LFNS:
                              (ADDRESS OF DISPLAY LIST + 1
GEND:
                              CLINE GROUP O DISPLAY LIST
              LOC (++16+)
GRP0:
                              CLINE GROUP 1 DISPLAY LIST
              L9C (++16+)
GRP1:
CLINE:
                              (ID NO. OF LAST LINE RECD
LASTL:
                              COUNT OF LINES DRAWN
LCNT:
              0
                              COURRENT LINE GROUP IDENTIFIER
LGRP:
                              LPTR INTO DISPLAY LIST
LPTR:
                             ISIDE LINE DISPLAY BUFFER PLUS SPOTS
NADAT:
              L9C (++180+)
                              CEOL FOR SIDE LINE WITH SPOTS
              1 J H
                               INEW BUFFER READY FLAG
NEUF:
              0
                              IDXDY VALUE FOR NON-AVGO LINE DISPLAY
              0
NOXDY:
                               (Ng. OF LINES TO DRAW
NLINE:
              0
                               INS. OF SPOTS PER LINE
NSPST:
              0
                               (PTR TO LOXDY TABLE
              0
PXY:
                              [PICTURE SCALE FACTOR
SCALE:
                               ISPETLITES REGD FLAG
SFLG:
               0
                               CTICK COUNT FOR REFRESH PURPOSES
TCNT:
TEMP1:
TEMP2:
LCTR:
TEMP3:
               0
NSHUT:
NFRAM:
CTEXT DISPLAY BUFFER
                                            LINPUT TEXT LINE BUFFER
               P(11,16.,13,102.)
TDAT1:
               19c(+19+)
CHARS:
ECHAR:
                                                             CHEADER
               P(11,16.,13,24.); P(22,37,0,3)
TDAT:
                                             CTIME
                       100
Heur1: 0:
           Heure: 0;
           MIN2: O;
                       100
MIN1: 0;
            SEC2: 0;
                       LFCR
SEC1:
       0;
           F1L2: 0; F1L3: 0; 134
                                                 (FREQ 1
F1L1: 0;
          F192: 0; F183: 0; F184: 0; LFCR
F1R1: 0;
                                                 tFREQ 2
                     F2L3: C;
                               134
           F2L2: 0;
F2L1: 0;
                               F2R4: C; LFCR
                     F2R3: C;
           F2R2: C;
F2R1: 0;
           F3L2: 0;
                     F3L3: 0;
                                134
                                                 (FREG 3
F3L1: 0;
```

VERSIEN 2 REVISION C CREATED 31 JAN 75

TWDIS

F

DATE

F3R4: 0: LFCR

F3R3: 0;

F3R1: 0; F3R2: 0;

```
VERSION 2 REVISION C CREATED 31 JAN 75
THOIS
                                    ISWITCH 1
              S1B: 0; LFCR
     S1A: 0;
                                    [SWITCH 2
              SZB: 0;
                       LFCR
     S2A: C;
                                    [ ETC
              S3B: 0;
                       LFCR
     S3A: 0;
                       Lr CR
              S43: 0;
     S4A: 0;
                       LFCR
     S5A: C;
S6A: C;
              S58: 0;
                       LFCR
               S6B: 0;
                       LFCR
               S7B: 0;
     S7A: 0;
               SSB: 0: LFCR
     S8A: C;
     S9A: 0;
S10A: 0;
               S98: 0: LFCR
                $108: 0; LFCR
                $118: 0; LFCR
     S11A: 0;
                S12B: 0;
     $12A: 0;
$13A: C;
                         LFCR
                S13B: C; LFCR
                S14B: 0; LFCR
     S14A: 0;
               $158: 0; LFCR
      $15A: C:
               $163: 0; LFCR
      $16A: 0;
      F1A: C; F1B: O; LFCR
      F2A: 0;
               F2B: 0
      END1:
                    P(11,64.,13,64.,1)
      END2:
                    20000
      VAX:
                    1JH 1
```

DATE

TERMINATE

Tols F	VERSION	2	REVISION	С	CREATED	31	. VAL	75	DATE	
11.3		FC!	7 0	10.	25			S14B		12.16
10.41		FC		7 • 1				S15A		12.17
10.42		FN:		11.	6			\$158		12.17
10.44		GE		11.				\$16A		12.50
10.61		GR		11.				5168		12.20
10.43		GR		11.				SIA		12.1
10+45		HI		10.				S18		12.1
10.45			JR1	11.				S2A		12.2
11.44			JR2	11.				S28	_	12.5
11.13		LA		4 • 1				S3A		12.3
11•4 11•5		LA:		4 • 1				538		12.3
2.12		LA		3.4				\$4A		12.4
2.37		LA!		11.				S48		12.4
2.44		FC.		11.				S5A		12.5
3.16		LF		11.				\$5B		12.5
3.33		LG		11.				SGA		12.6
3.35		LL		5.1				\$6B		12.6
11.45		الما		4.5				S7A		12.7
12.23		LL		5.2				57B 58A		12.7 12.10
12.24		LL		5.5				5 8 8		12.10
4.52		LP.		11.				59A		12.11
6.22		LS!		6.2				59B		12.11
7.1		LS:		6.5				SCALE		11.27
4 • 3 G		LT		7.4				SEC1	=	11.53
12.21		ĹX:		4.3				SECS		11.53
12.21		400		10.				SFLG		11.30
11.55		40		10.				TONT		11.31
11.55		410		10.				TDATE		11.43
11.55		41		10.				TDAT	•	11.47
11.56		M1	1	10.				TEMP!		11.32
11.56		416	5 2 9	10.				TEMP		11.33
11.56		41		1C.	52			TEMP3	3	11.35
11.56		~2		10.				VAX		12.26
12.22		440		10.						
12.22		41.		11.						
11.60		~ []		11.						
11.60		MAE		11.						
11.60		NBL		11.						
11.61		NOX	-	11.						
11.61		NFF		11.						
11.61		NL!		11.						
11•61 11•63		NSF		11.						
11.63			-	11.						
11.63		9XY		11.						
11.64		510		12.						
11-64		511		12.						
11.64		511		12.						
11.64		512		15.						
7.23		512		12.	-					
7.25		513		12.						
7.21		513		12.						
10.24		514			16 232					
			•							

```
INTSR VERSIAN
```

VERSIAN 2 REVISIAN C CREATED 07 JAN 75

DATE

CINTSR

[MOD OF AXINT FOR USE WITH WONG'S NEW 9300 PROGRAM

tvERSION 2 , REVISION C
t1/7/75

SICH

EXPUNGE TITLE INTSR

ENTRY AXINZ, AGTEX, RQUSE, AXINT, RSWFW, SDSSV, FINSH, SW8A, SW81, SW82

AXINZ:

JUMP MDAR ! F SDSSV CSET JP INTERFACE INTERRUPT PIVOT 77732 ARMO (SE" COMMUNICATIONS PIVOTS MDARIL PVT1 33000JH 77730 ARMD MDASIF 1 77731 ARMD [IS THIS AGT CONNECTED TO THE INTER OPIO 43120 IND. DONT RELEASE JUMP •+2 TRELEASE INTERFACE BIPE 43010 SPIS 430C4 CENABLE 9300 TO AGT INTERRUPT

ESUBROUTINE TO REINITIALIZE SWO'S AND SWI'S IN BOTH PROCESSORS

AXINZ

AXINT:

JUMP
MDAR
CLR
SW91
ARMD
SW92
ARMD
JPSR
ROWFW
-0
SW94
SW91
2
MDIR
AXIVE

ISUBROUTINE TO SET DIRECTION OF TRANSFER IN INTERFACE

AGTEX:

JUMP •
MDAR TAPE1
ARMD PVT1
MDIR AGTEX

ISUBROUTINE TO REQUEST USAGE OF INTERFACE

RGUSE:

INTSR

VERSION 2 REVISION C CREATED 07 JAN 75 DATE MDIR'X ROUSE TRETURN

234

[SUBROUTINE TO READ OR WRITE IN 9300 MEMORY

ROWFW:	JUMP	•	CENTRY
	BIG	43150	[BUSY OR REQUEST PENDING
	JUMP	• - 1	[YES, WAIT
	FPRI		(FREEZE
	ARX8 F		INB, CLEAR PIVOT 1
	ARMD	PVT1	
	MDAR!I	ROWFW	[IS THIS A WRITE TO 9300
	JSLS	AGTEX	LYES, SET AGT TO EXTERNAL
	MDARIXII	ROWFW	IND, GET PARAMETERS AND SET PIVOTS
	ARMD	PVT2	
	MDARII	PVT2	
	MDAR 1 A	AMSK	
	MDAR 18	PVT1	
	ARMD	PVT1	
	MDARIXII	ROWEW	
	8'H'I'X'RACM	そのみを が	
	ARMD	PVT2	
	9919	43120	CONNECTED
	JPSR	RGUSE	END, REQUEST USAGE
	ēP I ē	43020	(YES, CONTINUE USAGE
	JPRI		CUNFREEZE
	9919	43110	(BUSY
	JUMP	• -1	CYES, WAIT
	epie	4301C	CRELEASE INTERFACE
	X'RICM	ROWFW	CRETURN

CINTERFACE INTERUPT SERVICE ROUTINE

spssv:	JUMP FPRI ARMD'L	•	
SAVAR:	BRMDIL	э	
SAVBR:	JPSR	0 20wfw 0 5w9A 5w01 2	(FILL STATUS #8RD BUTPUT BUFFER
	MDAR MDBR JPRI	SAVAR Saver	•
	ויפאטע	SDSSV	[RETURN

INTSR VERSION 2 REVISION C CREATED 07 JAN 75 DATE

TROUTINE TO SET 9300 ACCESS BIT

FINSH:

JUMP
MDAR
CLR
SW91
ARMD
JPSR
-0
SW8A
SW91

5

MDIR

FINSH

CRETURN

8PI8=6007H

TAPE1: 200JH
AMSK: 77777
PVT1: 0
PVT2: 0
SW81: 0
SW82: 0
SW8A: 77776
CLR: 400JH

TERMINATE

Earthquake Plotting Program

This program was written on the PDP 11/50 in the C programming language, which is similar to PL/1. C is an excel-lent language for symbol manipulation and allows the user to specify new data types by using structures. Pointers are an important part of C and can be used to address structure elements as well as for more mundane purposes such as array indexing.

For the purpose of illustration, we will discuss the plotting of spectral data as displayed on the AGT=10 using On=line=ESP. An output tape is produced from ESP which consists of n+1 records for each plot to be processed. The first record contains header information which includes the fact that there are n subsequent records for the plot. Each of the n records contains the x=y coordinates of the transform spectrum for one line as it appeared on the AGT=10. The x values increase in neat steps, but the y values are the amplitudes or squared amplitudes of the Fourier coefficients at a particular frequency and can have a large range of values.

The Versatec can plot 264 bytes in one line and there are 200 lines per inch. It plots from the top of the page to the bottom. In order to draw the picture as it was seen on the AGT-10, the spectra must be plotted point by point from the largest to the smallest y value. The data are first scaled and then sorted in decending order. While the

plot is being made, additional points, resulting from the interpolation between actual data points, are included in the plot buffer. This results in a smoother, more continuous plot.

when all of the data have been plotted, the program plots a set of scale markers along the x-axis. These are appropritately annotated. In this application several trequencies are given along the x-axis. Finally the plot is documented with identifying information and useful data for each event.

The hard-copy capibility we have developed allows the user to make detailed comparisons between the spectral characteristics of earthquakes and explosions. The user is not forced to rely of the remembered appearances of interesting events after they have disappeared from the AGT-10 screen.

I. ENPLOT - Operating Summary

Mount the seven track tape produced by On-Line-ESP on the seven track tape drive of the PDP 11/50. The user has the option to execute the plotting program with an argument, which is the number of pictures to be skipped on the tape. If no argument is given, the plotting will begin with the first data set on the tape. The execution synopsis is:

eaplot n

where n is the number of plots to be skipped.

```
Page 1
eqpit.c
                   Tue Mar 15 09:10:36 1977
  1 #define XINT
                    320
 2 #define YINT
                   8000
  3 #define DELY
                    3200
 4 #define DELX
                     16
 5 #define AMPY
                    8000
 6 #define NLINE
                     1
 7 #define PI
                      3.141596525
 8 #define NPT
                    150
 9 int zero 0;
10 int one 1;
11
12
13 struct!
                                //structure for header
14
       int npt;
15
        int line;
        int ldx;
16
        int ldv;
17
18
        int cotr;
19
        int ment;
50
        int spot1;
21
        int spot2;
55
        int spot3;
23
       int hr, min, sec;
24
       int nft;
25
       int laa;
       int sr;
26
27
        int id[3];
28
        int lp;
50
        int scli
30
        int mo,day, yr;
       int noise;
31
32
       int event;
33 } head, *h;
34
35 int hbuf (3001;
36 struct data
                               //structure for data
37
       int x;
ЗA
        int yd;
39 1;
40
41 struct data *d;
42 int dbuf[3000];
43 int np;
44 int nin 8;
45
46
47 int idev.pdev.sclx.sclv.hiasx.tdev;
42
49
50
51 //main
                        main program may be called with one argument
52 //
                        which is the number of pictures to be skipped
53 //
                        on the input tabe
54
55 main(argc, argv)
56 int **arav:
57 (
58
       int i,j,n;
59
      char *cs;
60
       iff(tdev = onen("/dev/spn",1)) < 0){
                                        3710
```

```
eaplt.c
          Page 2 Tue Mar 15 09:10:36 1977
 61
             printf("cannot open spp \n");
 62
             exit();
 63
 64
         if((pdev = open("/dev/rvn",1))<0){</pre>
                                                        //open the versated
 65
            printf("cannot open rvp \n");
 66
             exit();
 67
 68
         if((idev = open("/dev/rmto",0))<0){</pre>
                                                        //open the tape drive
 60
             printf("cannot open rmt6 \n");
 70
             exit();
 71
 72
 73
         if(argc > 1){
                                           //skip specified number of pictures
 74
             cs = arav[1];
 75
             n = 0;
             while ( *cs >= '0' &R *cs <= '9')
 76
 77
                n = n * 10 + *cs++ - '0';
 7 A
             n =* 11;
 79
             for ( i=0; i<n; i++)
 80
                 inp(idev, dbuf,1200);
 81
             printf ("number of records skipped, %d\n",n);
 82
 83
        while((inp(idev, hbuf, 1200))>0){
                                                    //input header
 84
            h = hbuf;
 85
             j = 0;
 86
             for(i = 0; i< h -> line; i++){
                                                    //input data lines
 87
                n = inp(idev,%chuf[j], 1200);
 g g
                 j =+ 2*(h->npt);
 80
 90
 91
             sclx = 0100; sclv = 014;
             hiasx=20;
 92
 93
             no = h->npt + h->line;
 94
             scale();
 95
             plot();
 96
             header():
 97 //
            cvers(pdev,020);
 98 // stty(pdev,&one);
 90
100 }
101
102
103
104
105
106 #define NBYT 263
107 #define NBLK 0
108 #define NSL 1250
109 #define DRAW
110
111
112 struct int(
                 y ;
113
        int
114
        char
                 *xpb;
115
        char
                 ying;
116
                 xdir;
        char
117
        int
                 yf;
118
        int
                 CXD;
119
                 *flink;
        int
120
                 *blink;
        int
```

```
eaplt.c
            Page 3
                     Tue Mar 15 09:10:36 1977
121 } itab[7*NBYT],*ip,*ia;
122
123 char ph(NUYT);
124
125
126 int *dn[1500];
127
128
129
130 plot()
131 {
132
133
        struct ipt *s;
134
        int i, j;
135
        sort();
136
        for(i = 0; i < NRYT; i++)
                                         //clear plot buffer
137
            pb[i] = 0;
138
        for(i = 0; i < NRLK; i++)
139
            write(odev.oh,NhYI);
                                          //move to top of plot area
140
        io = 0; ia = itah;
                                      //plot scan line
141
        i = 0;
142
        for(i = MSL; i > -1; i--){
143
            while(j < no 5% *gr(j) == i){
144
                sin(dp(jl);
                                          //set up plot point for interpolation
145
                 j++;
146
147
            nih(i);
                                          //set up plot buffer
148
            write(pdev,ob,NHYT);//plot line
149
        }
150 }
151
152
153 int jsort;
154
155 sort()
156 {
157
        redister i,k,t;
15A
159
        for(d = dbuf; d < lahuf(hp+2); d++)
160
161
            dp(i++) = &(d -> yc);
162
163
        k=np;
164
        while ( k =>> 1 ) (
165
            isort++;
166
            while ( isort ){
167
                jsort = 0;
168
                 for ( i=0; i< (np=k); i++)
169
                     if ( *dp[i] < *dp[i+k] ){
170
                         t=dolil;
171
                         dp[i]=op[i+k];
172
                         doli+kl=+;
173
                         isort++;
174
                     }
175
            }
176
177
178 //
179 }
180
```

```
Tue Mar 15 09:10:36 1977
o. I laps
           Page 4
181
182 sin(dpi)
183
        int *dni;
184 (
185
        int xi, yi, xl, yl, xr, yr, incy, fv, dirx, cx, *s, lcx, inc;
186
187
        s=dpi;
188
        1cx = 1;
189
        vi = *dpi--; xi = *dpi;
190
191
        if(++s < &(dhuf[2*np])){
192
             xr = *s++;
             yr = *s;
193
194
             if (yr & DRAW) {
195
                 if((inc = vi = yr) >= 0){
                      if((incy = inc) == 0)
196
197
                          dirx = nip;
198
                     Alsel
                          for(i = 0; ((incv = (inc/(nip >> i))) == 0); i++);
199
                          dirx = (1 << i);
200
201
202
                      fy = yr;
                     cx = 0200;
203
                     1cx = 0;
204
205
                      stack(vi-incy,incy,fv,xi,dirx,cx);
                 }
206
207
             }
208
209
        it(--ani >= abuf){
             if (yi & ORAA) {
210
                 v1 = *doi --;
115
215
                 x1 = *doi;
                 if((inc = vi - y!) >= 0){
513
                      if((inev = ine) == 0)
214
215
                          dirx = -nio;
216
                      pisel
                          for(i =0; {(incy = (inc/(nip >> i))) == 0); i++);
217
                          dinx = -(1 << i);
218
219
550
                      fy = y1;
                      cx = lcxi
221
                      stack(vi-incv,incy,fv,xi-1,dirx,cx);
555
                 }
223
224
             }
225
1 955
755
25b
550
230 stack(a,b,c,nd,e,f)
         int a, b, c, dd, e, f;
231
232 1
233
         int *s;
234 int i;
235 struct int *z;
236
237
         ia -> y = a;
         ia -> vinc = t;
23A
239
         iu -> yf = c:
         if(dd >= NPYT &x ad < n){
240
                                          243
```

```
equit.c
           Page 5 Tue Mar 15 09:10:36 1977
241
             printf("bad scale x=%d\n",dd);
242
             exit();
243
        }
244
        ia -> xph = dd + ph;
245
        ia -> xdir = e;
246
        ia -> cxp = f;
247
248
        if(ip == 0){
249
             ip=itab;
250
             ip->flink=ip->blink=0;
251
             ia++;
252
             ia->blink=ip;
253.
             ia->flink=0;
254
        }
255
        elset
256
            s=ia->blink;
257
             s->flink=ia;
258
             if(ia\rightarrow flink == 0){
259
                 s = ia;
                 if(++ia >= &itab[7*NPYT]){
260
261
                     crintf("itab overflow \n");
262
                     exit();
263
564
                 ia->hlink=s;
265
                 ia->flink=n;
             }
266
267
             else{
268
                 s = ia -> flink;
269
                 s -> blink = ia;
                 ia -> flink = 0;
270
271
                 ia = s:
272
            }
273
        }
274 }
275
276
277 rib(s1)
278
        int sl:
279 (
280
        int i,j,n;
281
        int *s; s = in;
282
        while(s){
                                               //setup plotting buffer
             if(s -> yf <0)
283
                                               //delete point
284
                 if((s=free(s)) == 0)
285
                      return;
             *s -> xph =s -> cxc;
286
                                               //line break
            . if(s1 == s => y){}
287
288
                 i = ((n = s \Rightarrow xdir) > 0 ? n : -n);
289
                 if(n < 0)
                                                    //left
                      for(; = 0; ; < i; ;++){
0.65
291
                          if(s -> cxn == 0){
292
                              *s -> xph =+ 1;
293
                              s ~> cxp = 1;
294
295
                          +s -> xph ={ (s -> cxp =<< 1);
                     }
296
297
                 else
                      for(; = 0; ; < i; ;++){
895
500
                          +s->xph =: (s->cxn =>> 1);
300
                                         244
```

```
Page 6 | Tue Mar 15 09:10:36 1977
equit.c
301
                s->y =- s->yinc;
302
303
304
             if(s) <= s->yf)
                                          //end of point
305
                     9 - yf = -1
306
             s = s->flink;
307
        }
308 }
309
310
311 //free
                         restore data cells to free list
312
313 free(s)
314
       int *s;
315 (
316
        int *t;
317 int i;
318 struct int *z;
        *s -> xpb = 0;
319
        if(s->b)ink == 0){
320
321
             ip = s->flink;
             ip->hlink = 0;
322
323
             t=ip;
324
        }
325
        elset
326
             t = s->plink;
             t->flink = s->flink;
327
32A
             t = s -> flink;
329
             if(t == 0){
330
                 5 -> flink = ia;
331
                 ia = s;
332
                 return(t);
333
334
             t -> blink = s -> hlink;
335
        s->flink = ia;
336
337
        s->blink = ia->blink;
338
        ia = s;
339
        return(t);
340 }
341
342
343 //scale
                         scale the input data points
344
345 scale()
346 (
347
        struct data *s;
348
        int dm.1.j.c.minx.miny:
349
        int dx[10],dv[10];
        s = dbuf; minx = miny = 077777;
350
351
        d=5;
         for(i=0; i<h->line; i++) {
352
353
             j=(h->cptr+i)%h->line;
354
             dx[j] = (h->)ine-i-1)*(h->)dx);
             dy[j]=(h->line-i-1)*(h->ldv);
355
356
        for(i=0; i<h->line; i++) {
357
             for(j=0; j<h->not; j++) {
358
359
                 dm = d \Rightarrow \forall d \leq 1;
                                               //det the draw-move bit
360
                 d=>x=+ dx[i];
                                               //add in the x-bias
```

```
Page 7 Tue Mar 15 09:10:36 1977
eaplt.c
361
                d->yd =+ dy[i];
                                              //add in the y-bias
362
                d->yd =& 0177770;
                                              //mask for draw-move
363
                d=>yd=!dm:
                                              //replace draw-move hit
364
                d++;
365
366
367
        for(i = 0; i < np; i++){
                                              //find the x and y minima
36A
            minx = ((c = s -> x) < minx? c : minx);
369
            miny = ((c = s -> yd) < miny? c : miny);
370
            5++;
371
372
        if(minx > 0)
373
            minx = 0;
374
        itlminy > 0)
            miny = 0;
375
376
        s=dbuf;
377
        for(i = 0; i < no; i++){
37 A
            dm = s -> vd & 1;
                                          //det draw-move bit
370
            5 -> x =- minx;
                                      //hias by minimum x
380
            s -> vd =- minv;
                                      //hias by minimum y
381
             s -> x =/ sc1x;
                                  //scale
382
             s =>x =+ biasx;
383
             if(s=>x>=NRYT){
384
                printf("averflow oh \n");
385
                 exit();
386
            }
387
             s -> yd =/ sclv;
                                      //scale
388
             if(s=>vd > NSL)
289
                s->yd = MSL-1;
391
             s -> yd =% 0177770;
                                      //mask for draw-move
                                      //renlace draw-move
391
             392
            5++;
393
        }
394 }
395
396 inp(idf,buf,nbyte)
397
        int iaf, *buf, nhvte;
398 (
399
        int istance;
400
        structi
401
             char c1,c2,c3,c4;
402
        } cf[1200], *s;
403
        s = cf;
404
             if((n = read(idf, cf, nbvte)) > 0){
405
             for(i = 0; i < nhyte/4; i++){}
406
                 c = s -> c? << 2;
407
                 t = c << 10;
408
                 t = 1 s -> c3 << 6;
400
                 t = | s -> c4;
410
                 5++;
                 buf[i] = t;
411
412
             }
413
        }
414 }
415
416 char *cbp,*loc,t1[132],cb[10];
417 header()
418 1
419
        int i,j,ix,jx,n,m;
420
        double fn, f100;
```

```
eoplt.c
           Page 8
                     Tue Mar 15 09:10:36 1977
421
422
        f100 = 100;
423
        skip(20);
                                                            //skip 20 lines
424
425
        clr();
426
        j = h -> cptr * h -> not*2;
427
        ix = dbuf[j];
                                              //locate correct line
428
        jx = dhuf(j + (h -> npt - 1)*21 ;
429
        i = ix;
430
        while(i < jx){
431
            :0050 = lildo
432
            i =+ 20:
433
434
        for(i = 0; i < 20; i++)
                                                  //plot scale marker
435
            write(odev.ph,NBYT);
436
        for(i = ix; i < jx; i++)
                                                  //set up scale line
437
            ob[i] = 0377;
438
        write(ndev.ph, NBYT);
                                                  //plot scale line
439
        skip(10);
                                                  //skip 10 lines
440
        cir();
441
        loc = 8tl[ix/21;
                                                  //annotation
442
        i = h -> 10;
443
        while(i < (h -> lo + h -> not)){
444
            fn = f100 * i * h -> sr/h -> nft;
445
            cbn = cb:
446
            conv(j = fn/100);
            m = cbo - cb;
447
448
            mov()oc, ch, m);
            *(loc + m) = '.';
449
450
            cbo = cb;
451
            conv(j = fn - j*100);
452
            n ≈ cbb - cb;
453
            if(n == 1){
454
                cb[1] = cb[0];
455
                cb[0] = '0';
456
457
            mov(loc + 1 + m, ch, 2);
45ª
            loc =+ 10;
459
            i =+ 20;
460
461 //
        cvers(pdev,040);
462
        write(tdev,t1,132);
463
        skip(25);
464
        clr();
                                                  //clear text line
465
        for(i = 0; i < 2; i++)
466
            write(tdev,t1,132);
467
            skip(25);
468 //
        mov(t1 + 60, "EVFNT : ",8);
469 11
        cop = ch;
470 //
        conv(h -> event);
                                                  //write event number
471 //
        n = cbp - cb;
472 //
        mov(t1 + 68, ch, n);
473 //
        write(tdev,t1,132);
474 //
       cir();
475 //
        mov(t1 + 40,"ID : ",5);
476 //
        n = conc(h ->id.cb.2);
477 //
        mov(t1 + 45, ch.?);
478
        mov(t1 + 60, "DATE : ",7);
479
        cbn = co;
480
        conv(h -> mo);
                                                  //write month
```

```
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 481
         n = cbp = cp;
 482
         m = n + 67;
483
         mov(t) + 67, ch,n);
484
         t ? [m] = 1/1;
485
         m = m + 1;
486
         cbp = cb;
487
         conv(h -> day);
                                                  //write day
488
         n = cho + ch;
489
         mov(t1 + m,ch,n);
490
         m = m + n;
491
         tl[m] = '/';
492
         m = m + 1;
493
         (do = cd)
494
         conv(h -> vr);
                                                  //write year
495
         n = cbp - cb;
496
         mov(t) + m, cb,n);
497
         mov(t) + 80, "TIME : ", 7);
498
         :do = cb;
499
         conv(h -> hr);
                                                  //write hour
500
         n = chp - ch;
         mov(t1 + 87, ch, n);
501
502
         m = n + 87;
503
        t1[m] = ':';
504
        m = m + 1;
505
        cbo = cb;
506
        conv(h -> min);
                                                  //write minute
507
        n = coo = cb;
50R
        mov(t1 + m, cb,n);
509
        m = m + n;
        t)[m] = ':';
510
511
        m = m + 1;
512
        cbo = ch;
513
        conv(h -> sec);
                                                  //write second
514
        n = cbn - cb;
        mov(t1 + m, cp,n);
515
516
        write(tdev,t1,132);
517
        skip(25);
518
        clr();
519
        mov(t1'+ 40, "SIZE : ",7);
520
        cbn = cb;
521
        conv(h -> nft);
                                                  //write transform length
522
        n = cop = ch;
523
        mov(t1 + 47, ch,n);
524
        mov(t) + 60, "OVERLAP : ", 10);
        rto = ch;
525
526
        conv(h -> lan);
                                                  //write transform lag
527
        n = coo - cb;
528
        mav(t1 + 70,cb,n);
529
        mov(t) + 80, "SR : ", 5);
        cbp = cb;
530
531
        conv(h -> sr);
                                                  //write sampling rate
532
        n = cbp - cb;
533
        mov(+1 + 85, ch, n);
534
        write(tdev,t1,132);
535
        skip(25);
536
        clr();
537
        mov(t1 + 40, "SCALE : ", 8);
53A
        chp = ch;
539
        conv(h -> scl);
                                                  //write scale factor
540
        n = chn - cb;
```

```
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eaplt.c
        mov(t) + 48, ch, n);
542 11
        mov(t1 + 60, "NUNDISE : ",10);
        cbo = cb;
543 //
544 //
                                                  //write noise factor
        conv(h -> noise);
545 //
        n = cbp - cb;
546 //
        mov(t1 + 70,cb,n);
547
        write(tdev,t1,132);
548
        skip(25);
549
        for(i=0;i<10000;i++);
550
        skip(300);
551 //
        cvers(pdev,040);
552 //
        stty(pdev,&zero);
553 F
554
555.
556 conv(val)
557
        int vali
558
559 (
560
        int a;
561
        if(a = val/10)
562
            conv(a);
563
        *chp++ = val % 10 + '0';
564 }
585
566
567 conc(c1,c2,n)
568
        char *c2;
500
        int n, *c1;
570 1
571
        int i,m;
572
        for(i = 0; i < n; i++){}
573
            if(i == 6)
574
                m = (*c1 & 07700) >> 6;
575
            else
                m = *c1 % 0077;
576
577
            if(m == 012)
                *c2 = '0';
57R
579
            if(m >= 01 &8 m <= 011)
                *c2 = '1' + m = 1;
580
581
            if(m >= 021 R& m <= 031)
582
                *c2 = 'A' + m - 021;
583
             if(m >= 041 38 m <= 051)
584
             *c2 = 'J' + m -041;
585
            if(m >= 002 && m <= 071)
586
                 *c? = 'S' + m - 002;
587
        65++;
588
589
        return(i);
590 1
591
592
593
594
595 skip(cnt)
596
597
        int cnt;
59A (
599
        int i;
600
        for(i = 0; i < cnt; i++)
```

```
eqplt.c Page 11
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601
           write(pdev,oh,?);
602 }
603
604
605 clr()
606 {
607
        int i;
        for(i = 0; i < 132; i++)
tl(i) = ' ';
608
609
610
       t1[131] = '\n';
611 F
612
613
614 mov(to,from,n)
615
616
       char *to, *from;
617
       int n;
618 {
619
       int i;
        for(i = 0; i < n; i++)
620
621
           *to++ = *from++;
655 }
```

Bands

BANDS is the program used to find the spectral discriminant between earthquakes and explosions. It is relatively simple to run; however, because the transforms are preformed as part of this program, it can consume large amounts of computer time. The algorithm used is that described in the main section of this report. Results from the band analysis are stored on magnetic tape. By using the subroutine RSLTS, the operator can obtain a listing of the band analysis. The program also allows the user to call NIFTY, our general-curpose tape management subroutine.

The following parameters allow the user full control over the program:

IGM(0,1;0)	a 1-dimensional array with 21 entries.
	Each entry corresponds to a subarray.
	When $IG^{M}(I) = 1$, the subarray is
	processed.

LFT(?;256)	Length, in points, of the transforms.
LAG(?;32)	Lag, in points, between transforms.
SP(?;10)	Sampling rate of data in points/sec.

FRED(?)	High	and	low	frequency	limits	of	each
	band	to t	ne pr	ncessed.			

NBANDS(?;6) Number of bands to be processed.

KNIFTY(0,1;0) When 1, NIFTY will be called.

IRSLT(0,1;0) when 1, RSLTS will be called.

MAMP(0,1) 0 - integrate over power of Fourier coefficienteents

1 - integrate over amplitudes of Fourier chefficients

NONORM(0,1) 0 - normalize with respect to bandwidth

1 - no normalization

NONDISE(?:0) number of transforms to be averaged into noise spectrum

MGM(13) maximum number of subarrays

LOOP(1) total number of events to be processed.

Each event may include several subarrays.

- Meniter for Band Processing
- * ALL NAMELIST INPUT IS HANDLED AT THE LEVEL OF THE SUBROUTINES, SO
- * THERE IS NONE APPEARING AT THIS STAGE OF THE PROGRAM

INTEGER OTAPE, XCNT, BNDCTR, SR, SAMPTS

REAL STOR

- CAMMON NGM, NBANDS, FREG(2,8), LFT, SR, LAG, XCNT, RES, LGCNT, IFILE, NOREC,
- * NONDISE, IFLAG, ISHT, NPT, KILL, ITAFE, ICARD, ISTAR, IAB, LSPEC, BNDCTR,
- * STAPE, KNIFTY, IRSLT, IDBUF(13), LSSP, LSP, STSR(100,6), NGMCNT, IGM(21),
- * MGM, MAMP, NENSRM
- 10 OUTPUT(102) 'READY'
 - INPUT(101)
 - ISTAR = 1
- 20 IF(KNIFTY .EG. 1) CALL NIFTY
 - KNIFTY = 0
 - IF(IRSLT •EG• 1) CALL RSLTS
 - IRSLT = 0
- 3C CALL BANDS
 - IF((KNIFTY .EG. 1) .9R. (IRSLT .EG. 1)) ISTAR=1; 69 T9 20
 - CALL XFERM
 - G9 T8 30
 - END

SUBROUTINE BANDS

THIS PROGRAM FINDS THE ENERGY WITHIN GIVEN FREQUENCY BANDS. AS MANY AS 8 BANDS MAY BE USED TRANSFORM LENGTH IS RESTRICTED TO 1024 POINTS THE TOTAL NUMBER OF TRANSFORMS CAN BE NO MORE THAN 1024 OR THE TOTAL NUMBER OF POINTS CAN BE NO MORE THAN 32K.

DATA DESCRIPTION

IGM A 1-DIMENSIONAL ARRAY WITH 21 ENTRIES. WHEN IGM(I) IS SET EQUAL TO 1, THE ARRAY IS PROCESSED LFT LENGTH, IN POINTS, OF TRANSFORM LAG, IN PRINTS, OF TRANSFORM LAG SAMPLING RATE OF INPUT DATA IN POINTS PER SECOND SR FREG A 1-DIMENSIGNAL ARRAY IN WHICH THE HIGH AND LOW FREQUENCY* LIMITS OF EACH BAND ARE ENTERED NBANDS NUMBER OF FREQUENCY BANDS TO BE PROCESSED KNIFTY DEFAULTS TO O, WHEN SET TO 1, CONTROL WILL PASS TO THE NIFTY MAGNETIC TAPE PACKAGE IRSLT DEFAULTS TO C. WHEN SET TO 1. CONTROL WILL PASS TO THE SUBROUTINE WHICH PRINTS BUT THE RESULTS MAMP O - INTEGRATE OVER POWER OF FOURIER COEFFICIENTS 1 - INTEGRATE OVER AMPLITUDES OF FOURIER COEFFICIENTS NENBRY O - NORMALIZE INTEGRATION WITH RESPECT TO WIDTH OF BAND 1 - NO NORMALIZATION NAMBISE DEFAULT IS O. THE NUMBER OF TRANSFORMS TO BE AVERAGED INTO THE NOISE SPECTRUM **454** TOTAL NUMBER OF SEISMOGRAMS FOR THE EVENT F69b TOTAL NUMBER OF EVENTS TO BE PROCESSED

REAL STOR
REAL FREBUF, KBUF
INTEGER SAMPTS, XFILE, SR
INTEGER BNDCTR, OTAPE, XCNT, XFCT
DIMENSION IBUF (1024), FREBUF (8), KBUF (512), INTSTR (1000)
DIMENSION BUF (10)

CAMMON NGM, NBANDS, FREG(2,8), LFT, SR, LAG, XCNT, RES, LGCNT, IFILE, NBREC, NBNOISE, IFLAG, ISHT, NPT, KILL, ITAPE, ICARD, ISTAR, IAB, LSPEC, BNDCTR, CTAPE, KNIFTY, IRSLT, IDBUF(13), LBOP, LBP, STBR(100,6), NGMCNT, IGM(21),

```
* MGM MAMP NENSRM
      NAMELIST LFT, SR, FREG, NBANDS, KNIFTY, IRSLT, KILL
      NAMELIST IGM, ICARD, MAMP, NONDRY, LAG, ITAPF, STAPE
      DATA XFILE/10/, LREC/1024/, NOSFILE/25/
      EQUIVALENCE (SAMPTS, IDEUF (8)), (STOR, INTSTR)
      EGUIVALENCE (IBUF(100), BUF)
      NAMELIST NONBISE, LOOP, MGM
      RECOVER AT THE APPROPRIATE PLACE IN THIS SUBROUTINE
      GA TO (5,10,20,40) ISTAR
      SET UP PARAMETERS
      FREG(1,1) = 0.4
      F = E = (2,1) = FRE = (1,2) = 0.6
      FREG(2,2) = FREG(1,3) = 1.0
      FREG(2.3) = FREG(1.4) = 1.4
      FREG(2,4) = FREG(1,5) = 2.0
      FREG(2,5) = FREG(1,6) = 3.0
      FRE3(2,6) = 4.5
      LFT = 256
      MGM # 13
      MAMP = 0
      LAG = 32
      L89P = 1
      SR = 10
      KNIFTY = IRSLT=KILL=0
      ITAPE = 1
      STAPE = 2
      ISTAR = 2
      NBANDS = 6
      ICARD # 0
      NAVBISE = 0
      08 6 1 = 1,21
      164(1) = 0
      15M(3) = 16M(7) = 16M(8) = 16M(11) = 16M(13) = 1
       D8 7 I = 1.NBANDS - 1
      FREQ(1,1+1)*FREQ(1,1+1) + .001
7
10
      BUTPUT(102) 'READY TE GE'
      INPUT(101)
      IF(ICARD .EG. 1) INPUT(5)
      NGM * 0
      00 12 1 = 1,13
      NGM * NGM + IGM(I)
12
      ICARD = 0
```

```
Lab . 0
30
      IF (KNIFTY .EQ. 1) ISTAR = 3; RETURN
      IF(IRSLT .EQ. 1) ISTAR = 1; RETURN
13
15
      LOP = LAP + 1
      IF(LOP +GT+ LOOP) GO TO 10
      NGYCNT = 0
17
      NGMONT . NGMONT + 1
      IF (NGMONT +ST+ MGM) GO TO 15
      IFIIGMINGMENT) .ED. O) CALL FURSCHITTAPE: 17: 00 10 17
      CALL INIT
30
      TRICKECT .NE. OF GO TH 40
      ISTAR . 4
      RETURN.
      CALL BIRTH
40
      IF (IFLAG .EQ. 777) 39 TH 100
      CALL INTEGR
      BADOTR . BIDGME + 1
      SCHARNAL # 1. NBANDS
      STOR (BNDCTR, [AB) = FREBUF ([AB)
      CONTINUE
60
      IF (BNDCTR .EG. 100) GB TB 100
      68 79 30
      END OF INPUT DATA, BUTPUT RESULTS.
      IDBUF(13) . BNDCTR
100
      CALL READDINGSFILE, 13CF, LRECT
      CALL INTEGR
      DO 110 140 . 1/LRFC
      19UF([48]) . 0
113
      50 120 148 * 1,13
130
      [RUF([AB] * []BUF([AB])
      CONFINAL * PAT 721 PG
      BUF(IAB) - FREBUF(IAB)
125
      CALL BINHUT(BTAPE, IBUF, LREC, IND)
      DH 150 TAB . 1.NBANDS
      09 130 K # 1,510
      KP4F(K) = 3.0
130
      D" 143 K = 1,8NPCTR
140
      KUUF(K) . STOR(K, 1AB)
150
      CALL BINBUT (BTAPE, KBUF, LRFC, IND)
      CALL NEPF (STAPE . C)
      CALL BAKREC(ITAPE.1)
      CALL FORSCN(ITAPE, 1)
      69 78 17
```

```
SUBROUTINE BIRTH
      RECOVERY SUBROUTINE AFTER RETURN FROM TRANSFORM
      IF(XFCT .NE. 0) G9 T9 20
      CALL READD(XFILE, IBUF, LREC)
20
      LGCNT = LGCNT + 1
      MA * XFCT*LSPEC
      DA 30 II = 1,LSPEC
      ISUF(II) = IBUF(MA+II)
30
      XFCT = MOD(XFCT+1, XCNT)
      IF(LGCNT.GE.(SAMPTS-LFT)/LAG) IFLAG = 777
      RETURN
      SUBROUTINE INTEGR
      DRES TRAPEZBIDAL INTEGRATION OVER A GIVEN FREGUENCY BAND.
      THE ENERGY PER RESOLUTION ELEMENT IS FOUND
      DA 10 TAB = 1. NEANDS
      IP1 = FREQ(1, IAB)/RES
      IP2 * FREQ(2, IAB)/RES
      1.11 = 192 + 191 + 1
      FPEBUF(IAB) = 0
      De 10 II = 1, INT1
      M = IP1 + II
       THIS APPEARS TO BE ONE POINT OFF; HOWEVER, WHEN THE DC COMPONENT
      IS ACCOUNTED FOR, WE START ON THE CORRECT FREQUENCY POINT
      VAL = FLBAT(IBUF(M)) ++2
      IF(MAMP *EQ. 1) VAL = IBUF(M)
      IF(VAL +LT+ 0) VAL = 0
      IF(NONORM .EQ. 1) FREBUF(IAB) = FREBUF(IAB) + VAL+RES; GO TO 10
      FREBUF(IAB) = VAL*RES/INT1 + FREBUF(IAB)
10
      CONTINUE
      RETURN
      SUBROUTINE INIT
      READ IN HEADER RECORD AND SAVE IT
      BNDCTR = 0
      LGCNT = 0
      XFCT = 0
      LSPEC = LFT/2
```

```
XCNT = LREC/LSPEC
      IFLAG=ISHT=0
      RES*FLOAT(SR)/FLOAT(LFT)
      CALL BININ(ITAPE, IBUF, LREC, IND)
      NOREC = [BUF(1)
      D8 10 TAB = 1,13
      IDBUF(IAB) - IBUF(IAB)
10
      IDBUF(1) = NBANDS
      D8 20 IAB = 1,512
50
      KBUF(IAB) = 0
      DA 30 IAB = 1,1000
30
      INTSTR(IAB) = 0
      TF(((IDBUF(8) -LFT/LAG).GT.10C).AND.(NBANDS.GT.6)) SUTPUT(102) 'TS
     *0 BAD'; INPUT(101)
IF(NOREC •GT• 16) SUTPUT(102) 'T00 MANY'; INPUT(101)
      RETURN
      END
```

SUBROUTINE RSLITS PRINT OUT THE RESULTS OF INTEGRATIONS IN USEABLE FORM NAMELIST PARAMETERS: LOOP - NUMBER OF OUTPUT FILES TO BE PRINTED OUT RNORM = NUMBER OF FREQUENCY BAND WITH RESPECT TO WHICH THE NORMALIZATION WILL TAKE PLACE FOR A PARTICULAR SPECTRUM NORM = NUMBER OF FREQUENCY BAND WITH RESPECT TO WHICH NORMALIZA-TION OF ALL OF THE SPECTRA WILL TAKE PLACE IRAND = FLAG TO REWIND INPUT TAPE REAL HBUF REAL MX REAL IBUF & KBUF INTEGER TAPE, SR, RNORM, NORM DIMENSION IBUF (512,8), JBUF (1024), NBUF (20), BUF (512) DIMENSION KOUF(6), FOUF(6), HOUF(6), MX(6), RBUF(10) COMMON NGM, NBANDS, FREG(2,8), LFT, SR, LAG, ISTUP(6), NONDISE NAMELIST NGM, LFT, SR, LAG NAMELIST MXALL, MXNO, ISUM NAMELIST LOOP, RNORM, NORM, ISF, TAPE NAMELIST IRWND DATA IRWND/0/ DATA TAPE/2/, ISF/1/, RNGRM/2/, NGRM/2/ DATA LREC/1024/ DATA MXALL/1/, MXN9/1/, ISUM/O/ EQUIVALENCE (KBUF, NBUF), (JBJF, BUF), (JBJF (100), RBUF) BUTPUT(102) 'DATA' INPUT(101) IF(IRWND .NE. O) CALL RWND(TAPE) IF(ISUM .EQ. 0) LOOP = LOOP +NGM D8 90 LP=1, L89P IF(ISUM .NE. 0) CALL SUMAR; G8 T8 21 CALL BININ(TAPE, JBUF, LREC, IND) 15 NEANDS = JBUF(1) IF(NBANDS .GT. 8) BUTPUT(102) 'NBANDS'; INPUT(101) DR 20 I = 1.NBANDS CALL BININ(TAPE, IBUF(1,1), LREC, IND) CONTINUE 2C 21 WRITE(6,99)

```
WRITE(6,100)
                    JBUF(1), JBUF(2), JBUF(6), (JBUF(1), [=3,5),
     * (JBUF(1),[=10,12),LFT,LAG,JBUF(9),JBUF(13),NeN9ISE
      WRITE(6,200)((FREG(I,U), I=1,2), J=1, NBANDS)
      WRITE(6,250) (RBUF(1),1 = 1,NBANDS)
      WRITE(6,300)
      ICTR = JCTR = 0
      TCTR = 1
      IFLAG = 1
      IF(MXALL +EQ+ 1) MXN8 = JBUF(13)
      De 25 I = 1,6
      MX(I) = 0
      D8 25 K = 1, MXN8
      MX(I) = AMAX(MX(I), IBUF(K, I))
25
      CONTINUE
30
      D8 51 K = 1,5
      D8 49 I = 1.NBANDS
      IF(ICTR .GT. JBUF(13)) GB TB 80
      IF (IBUF (ICTR, RNORM) .EG.O) IBUF (ICTR, RNORM) =0.01
      KBUF(I) = IBUF(ICTR,I)
      FRUF(1) = IBUF(ICTR, I)/IBUF(ICTR, RNORM) + ISF
      HBUF(I) = IBUF(ICTR,I)/MX(NORM) * ISF
49
      CENTINUE
      ICTR = ICTR + 1
      write(6,400) (KBUF(I),FBUF(I),HBUF(I),I=1,NBANDS)
51
      CONTINUE
      WRITE(6,500)
      JCTR = JCTR + 5
      IF(((IFLAG .EG. 1) .AND. (JCTR .GE. 40)) .0R. (JCTR .GE. 45))
     * CALL HEADER
      GP T9 30
80
      IF(ISUM .EG. 0) CALL FORSCN(TAPE,1)
90
      CANTINUE
      FERMAT(1H1)
99
      FORMAT('NO. BANDS ',15,3X,'ID. NO. ',15,3X,'SUBARRAY ',A4,3X,
100
     * 'M8 ',12,' DAY ',12,' YR ',12,' HR ',12,' MIN ',12,' SEC ',
     * 12/'TRANSFORM LENGTH ',14,'PTS',3X,'LAG ',14,'PTS',3X,'SAMPLING
     *RATE ', 14, 'PTS/SEC', 3x, 'N9. XFORMS ', 14, 4x, 'N9N9ISE ', 14///)
200
      FPRMAT(6(6x,F4.2,1x,'-1,1x,F4.2,5x))
250
      FORMAT(6(F14+1,8X))
300
      FORMAT(6(2X, 'VALUE', 3X, 'RATIO', 2X, 'NORM', 1X))
400
      FORMAT(6(E8.3,1X,F5.2,1X,F5.3,2X))
```

```
500
      FERMAT(1 1)
      SUBROUTINE HEADER
      WRITE(6,99)
                      ((FREG(I,J), I=1,2), J=1, NBANDS)
      WRITE(6,200)
      WRITE(6:300)
      JCTR = IFLAG = 0
      FORMAT(1H1)
99
      FARMAT(6(6x,F4.2,1x,'-1,1x,F4.2,5X))
500
      FORMAT(6(2X, 'VALUE', 3X, 'RATIO', 2X, 'NORM', 1X))
300
      RETURN
      SUBROUTINE SUMAR
      CALL BININ(TAPE, JBUF, LREC, IND)
      De 20 I = 1,20
      NBUF(I) = JBUF(I)
20
      NBUF(6) = 60214343B
      NBANDS = NBUF(1)
      De 30 1 = 1, NBANDS
      CALL BININ(TAPE, IBUF(1,1), LREC, IND)
30
      CALL FORSCN(TAPE, 1)
      De 40 I = 1, ISUM -1
       CALL BININ(TAPE, JBUF, LREC, IND)
       DA 35 K = 1, NBANDS
       CALL BININ(TAPE, JBUF, LREC, IND)
       De 35 J = 1,512
       IBUF(J,K) = IBUF(J,K) + BUF(J)
35
       CALL FORSCN(TAPE, 1)
40
       D9 50 I = 1, NBANDS
       D9 50 J * 1,512
       IBUF(J,I) = IBUF(J,I)/ISUM
50
       De 60 J = 1,20
       JEUF(J) = NBUF(J)
60
       RETURN
       END
```

Tape Preparation Programs

There are three programs for the preparation of tapes to be used with ESP, DSO, and DXD. They are: READDATA, MERGE, and EVTRD. These programs are part of an overlay package. Below is a description of the purpose and operation of these programs.

I. READDATA

This program was written to read and transcribe the ordinary seismic data tapes provided by Teledyne Geotech. The original format of the tapes is BCD with short records. This is very bulky since large quantities of tape are used merely for end of record gaps. The tapes resulting from READDATA are binary and have the following format:

- 1. a header record of length 1024 words
- 2. data records of length 1024. The last data record is nadded with zeros.

The header record contains the following information:

WORD	NEMONTO	DESCRIPTION
1	NPEC	number of data records to
		follow header record
5	IDTAPE	tape identification number
3	мŌ	month
4	DAY	day

5	YR	year
6	ISITE	site identification, for
		LASA this was the subarray
		descriptor
7	NCH	number of channels on the
		data records. Usually this
		was one channel, but, for a
		few test tapes, two chan-
		nels one of which was for
		timing, were used.
8	LENGTH	total number of samole
		points
9	SR	sampling rate in samples
		per second
10	TIME(1)	time in hours
1 1	TIME(2)	time in minutes
12	TIME(3)	time in seconds

For the data supplied by CDC, the time was the arrival time of the signal. The time given for the data supplied by ACDA was the start time of the data.

Operation

- 1. mount program tane on MT3A and read into the computer using a rerun deck for MT3A. Type IREAD \approx 1 \times c/r on the control console.
- 2. mount original Teledyne tape on MT1A and the output tape on MT2A $\,$

- 3. a message will appear on the control console 'DATA IN'
- 4. input parameters should be specified.

IDATE mo,day,vr each two digits

IDTAPE five-digit tape identification number

NARAY number of subarrays on input tape to be processed

- 5. on the line-printer the header for each time sequence will be printed out
- 6. when all of the subarrays have been processed, steps3, 4, and 5 may be repeated

II. MERGF

To conserve an much magnetic tape as possible, this program allows the user to consolidate the results of several READDATA runs on one tape. It simply copies the input tape verbatum onto an output tape.

Operation

- 1. mount program tape on MT3A and read into computer using card deck to rerun from MT3A. Type IMERG = $1 \times c/r$ on the control console.
- 2. mount input tape on MTIA and output tape on MT2A

3. a message will appear on the control console

START

4. input parameters

NARRAY number of subarrays for data set about to be copied 5. upon completing the copy, steps 3 and 4 may be repeated.

III. EVTRD

This program was written to read BCD event tapes from Teledyne. The format of the input and output tapes is the same as that described for tapes used by READDATA.

Operation

- 1. mount probram tabe on MT3A and run using card deck labeled rerun from MT3A. Type IEVNI = 1 * c/r on the control console.
- 2. mount input and output tapes on MT1A and MT2A respectively
- 3. the .mr . ne, TAPE, will appear on the control console. At this woint, make sure that the correct input tape is mounted, then type * c/r.
- 4. the message, DATA IN, will appear on the control console.

5. specify the parameters

IDTAPE, IDATE, NARRAY, and SF

where the first three are the same as those described in READDATA and the last is the scale factor.

b. The program will loop through steps 4 and 5 ten times and then do back to step 3 at which point the input and/or output tapes can be changed.

- MONITOR FOR TAPE PROCESSING
- COMMANDS ARE:
- TO READ A TYPICAL DATA TAPE FROM TELEDYNE TO MERGE TOGETHER SEVERAL TAPES IREAD = 1
- IMERG # 1
- TO READ AN EVENT TAPE IEVNT = 1

NAMELIST IREAD, IMERG, IEVNT DATA IREAD/O/, IMERG/O/, IEVNT/O/

BUTPUT(102) 'COMMAND' INPUT(101) IF(IREAD .NE. 0) CALL READDT; IREAD = 0; 38 TO 5 IF (IMERG .NE. 0) CALL MERGE; IMERG= 0; G8 T8 5 IF(IEVNT .NE. 0) CALL EVTRD; IEVNT = C; G8 T8 5 G8 T8 5 END

```
SMITE PZE
       FRM
                9SETUPN
       PZE
IDSITE PZE
ISITE PZE
                0
                0
      LOA
               *IDSITE
       LRSA
                               SHIFT UPPER 12 BITS TO LOWER POF WORD
                014
       LLSA
                014
       STA
                *ISITE
       BRR
                MITE
       END
```

```
SUBROUTINE EVTRD
       SUBROUTINE TO READ EVENT TAPE
      DIMENSION IBUF(1024), JBUF(1200), ARAY1(1040), IARAY2(13,80),
     * ISDAT(3), IDATE(3), RDATA(8), TIME(4), SITE(70), ZEROS(330),
     * ISITE(3), IRY(1040)
      EQUIVALENCE (IRY, IARAY2)
      INTEGER STAPE
      NAMELIST SF, ICARD, IDTAPE, IDATE, NARRAY, LSTAPE, IFIN
      DATA SF/100/, ICARD/0/, GTAPE/2/, ITAPE/1/, LREC/1024/, NARRAY/13/,
     * LSTAPE/O/JUREC/1200/JIFIN/O/
      CALL ESFSET(200S)
      SUTPUT(102) 'TAPE'
5
      IMPUT(101)
      IF(IFIN .NE. 0) RETURN
      De 170 NMK = 1,10
      BUTPUT(102) 'DATA IN'
      INPUT (101)
      IF(ICARD *EG* 1) INPUT(5)
      ICARD = 0
10
      READ(1,1000) ISDAT, TIME, SITE, ZEROS
      CALL WRTHED
      IF(NREC+1024 *LT* ISDAT(3)) NREC = NREC + 1
      DA 60 IJ = 1, NREC
      De 20 I = 1,1024
20
      ISUF(I) = 0
      D9 50 J = 1.128
      DA 30 M = 1.8
30
      RDATA(M) = 0.0
      LENCOM = (IJ-1)*LREC+ J*8
      READ(1,3000) (RDATA(\langle \rangle) , \langle \rangle = 1,8)
      Da 40 F = 1'8
      IBUF((J=1)*8 + L) = RDATA(L)*SF
4 C
      IF (LENCOM .GE. LENGTH) GO TO 70
50
      CONTINUE
      CALL BINGUT (STAPE, IBUF, LREC, IND)
      CONTINUE
60
      CALL WESF (STAPE, 0)
      G8 T8 80
7C
      CALL BINGUT (GTAPE, IBUF, LREC, IND)
      CALL WEOF (OTAPE, 0)
8C
      CONTINUE
      RFAD(1,1000) ISDAT, TIME, SITE, ZEROS
      D9 140 I = 1,13
      De 90 J = 1,150
      READ(1,3000) (RDATA(K),K = 1,8)
```

```
DS 90 K = 1,8
90
      JBUF((J=1) *8 + K) = RDATA(K) *SF
      De 100 J = 1,1024
100
      IBUF(J) = 0
      CALL WRTHED
      D8 110 J = 1,1024
      IBUF(J) = JBUF(J)
110
      CALL BINBUT(BTAPE, IBUF, LREC, IND)
      De 120 J = 1,1024
120
      IBUF(J) = 0
      09 130 J = 1,176
      19UF(J) = JBUF(1024 + J)
130
      CALL BINGUT(STAPE, IBUF, LREC, INO)
      CALL WESF (STAPE, 0)
140
      CONTINUE
170
      CANTINUE
      9UTPUT(102) 'ESF'
200
      G9 T9 5
1000 F9RMAT(3110,F10.2,2F5.0,F5.1,25X/3(2044/),10A4,10F4.0/
     + 15(2CF4.0/),2CF4.0)
3000 F8RMAT(8F10+4)
      WRITE BUT THE HEADER
      SUBROUTINE ARTHED
      NREC = ISDAT(3)/1024
      IF(NREC*102+ +LT. ISDAT(3)) NREC = NREC + 1
      CALL MITE(SITE(1), ISITE)
      IBUF(1) = NREC
      ISUF(2) = IDTAPE
      IBUF(3) = IDATE(1)
      IBUF(4) = IDATE(2)
      13UF(5) = IDATE(3)
      IRUF(6) = ISDAT(1)
      IBUF(7) = ISDAT(2)
      19UF(3) = ISDAT(3)
      ISUF(9) = TIME(1)
      IBUF(10) = TIME(2)
      IRUF(11) = TIME(3)
      IBUF(12) = TIME(4)
      WRITE(6,2000) ISDAT, TIME, NREC, SITE(1)
2000 FPRMAT(1X, 'SEISMBGRAM NO. = 117,5X, 'NCH = 1,110,5X, 'SMPLS/CH = 1,
     (10//RATE/,[3,5x,'HR',[3,5x,'MIN',13,5x,'SEC',[3,5x,'NREC',13/
     · 'SITE', A2)
      CALL PINDITIOTAPE, IBUF, LREC, IND)
LENGTH = ISDAT(3)
      นัก<u>ร้</u>ปัจจุ
```

```
SUBROUTINE READOT
     CONVERT DATA TO INTEGER AND DUMP ON TAPE
     RECORDS ARE 1024 WORDS LONG - THE FIRST RECORD IS AN IDENTIFIER
     ARRANGEMENT OF DATA IN HEADER RECORD
       1 - NREC - NUMBER OF RECORDS OF DATA TO FOLLOW FOR CURRENT GRAM
       2+ EVENT ID - A 5 DIGIT INTEGER NUMBER
       3+ EVENT DATE
4+ EVENT DATE
                        MONTH
                        DAY
       5- EVENT DATE
                        YEAR
       6. SITE AND GRAM NUMBER IDENTIFIER
       7. NUMBER OF CHANNELS OF DATA ONLY ONE IS LEGAL
       8+ LENGTH OF SEISMOGRAM NUMBER OF SAMPLES PER CHANNEL
       9- SAMPLING RATE IN SAMPLES PER SECOND
      10- START TIME OF SEISMOGRAM
                                      HR
      11- START TIME OF SEISMOGRAM
                                       MIN
      12- START TIME OF SEISMOGRAM
                                       SEC
     DIMENSION ISDAT(3)
     DIMENSION IDATE(3), RDATA(8), TIME(4), SITE(70), ZER9S(330),
                IBUF (1024)
     INTEGER IDATE, IDTAPE, ISDAT, IRATE, NREC, IBUF, TESTF, ITAB, BTAPE, LREC
     NAMELIST SF, ICARD, ISTAPE, IDATE, NARRAY, LSTAPE, IFIN, IRWYS
     DATA SF/1000/, ICARD/D/, STAPE/2/, LREC/1024/, ITAPE/1/,
     * MARRAY/13/,LSTAPE/0/, IFIN/0/, IRWND/0/
     EQUIVALENCE (IBUF(6), ISDAT)
     CALL ESFSET (605)
     READ A SEISMOGRAM AND CONVERT DATA TO INTEGER
   5 SUTPUT(102) 'DATA INPUT'
      SUGGESTED INPUT - 5-DIGIT IDTAPE, 3 INTEGER NUMBERS IDATE .
       MONTH, DAY, YEAR; NARRAY = NUMBER OF SUBARRAYS; LSTAPE = 1 IF
      WORKING ON LAST TAPE AND WANT A DOUBLE EOF AT THE END OF THE
      BUTPUT TAPE
      INPUT(101)
      IF (IFIN .NE. O) RETURN
      IF (ICARD .EQ. 1) INPUT(5)
      TCARD = 0
      READ HEADER ON DATA TAPE
      WRITE(6/250)
      FORMAT(1H1)
250
```

```
6 D8 55 NALL = 1, NARRAY
10 READ(1,100) ISDAT, TIME, SITE, ZERSS
100 FBRMAT(3[10,F10.2,2F5.0,F5.1,25X/3(20A4/),10A4,10F4.0/
           15(20F4.0/),20F4.0)
    TESTF = 0
    MPTS = (ISDAT(3) = (ISDAT(3)/8)*8)
                                         (E)TACE: +
    MPTS = MPTS + ISDAT(2)
    NREC = MPTS/1024
    IF(NREC*1024 .LT. MPTS) NREC = NREC + 1
    LENGTH - MPTS
    IBUF(1) = NREC
    IBUF(2) = IDTAPE
    IBUF(3) = IDATE(1)
    ISUF(4) = IDATE(2)
    IBUF(5) = IDATE(3)
    IPUF(9) = TIME(1)
    IPUF(10) = TIME(2)
    196F(11) = TIME(3)
    IBUF(12) = TIME(4)
    CALL MITE(SITE(1), ISITE)
    IRUF(6) . ISITE
    CALL BINGUT(STAPE, IBUF, LREC, IND)
    WRITE(6,200)
                    ISDAT, TIME, NREC, SITE(1)
200 FRRMAT(1X) 'SEISMOGRAM NO. = '/A4, 5X, NCH =', 110,5X
   + 'SMPLS/CH =', I10/'RATE', I3,5X, 'HR', I3,5X, 'MIN', I3,5X, 'SEC', I3,
   * EX, 'NREC', [3/'SITE', A2)
    ATAC CARR
    08 50 1J . 1. NREC
    09 20 1 = 1,1024
30 IBUF(I) . 0
    D9 40 J = 1,128
D9 25 M = 1,8
 25 RTATA(M) = 0.0
   LENCS* * (IU-1)*LREC + U*8
    RFAD(1,300) (RDATA(K), K=1,8)
300 F9RMAT(8F10+4)
    0° 30 L = 1.8
 30 13UF((J=1)+8 + L) = RDATA(L)+SF
    IF(LENCS* +GE+ LENGTH) GB T9 45
 40 CANTINUE
    CALL BINBUTIBTAPE, IBUF, LREC, INDI
 SC CANTINUE
     CALL WESFISTAPE, 0)
    3ª 78 55
 45 CALL PINBUTIOTAPE, IBUF, LREC, IND)
     CALL AERFIGTAPE, D)
 55 CONTINUE
    GP 79 70
```

60 TESTF = TESTF + 1
IF(TESTF •GT• 1) G0 T0 70
G0 T0 6
70 IF(IRWND •NE• 0) CALL RWND(ITAPE)
IF(LSTAPE •EG• 1) CALL WEDF(0TAPE,0)
G0 T0 5
SUBROUTINE DUMMY
RETURN
END

```
NAMELIST PARAMETERS
      NARRAY = NUMBER OF ARRAYS TO BE COPIED
                   TO GO BACK TO THE MONITOR PROGRAM
      IFIN = 1
      SUBROUTINE MERGE
      PROGRAM TO MERGE EARTHQUAKE READDATA TAPES
      INTEGER STAPE
      DIMENSION IBUF (1024)
      NAMELIST IFLAG, NARRAY, IFIN
      DATA LREC/1024/,NARRAY/13/,ITAPE/1/,9TAPE/2/,IFIN/O/
      IFLAG = 0
10
      BUTPUT(102) 'START'
      INPUT(101)
      IF(IFIN .NE. 0) RETURN
      D9 50 [ = 1, NARRAY
      DP 20 K = 1,1024
20
      IBUF(K) = 0
      CALL BININ(ITAPE, IBUF, LREC, IND)
      IF(IND .NE. 0) G9 T9 60
      IF(IFLAG .EG. 1) IBJF(2) = 6; IFLAG = C
      Nerec = IBUF(1)
      CALL BINGUT (GTAPE, IBUF, LREC, IND)
      De 40 J = 1, NAREC
      De 30 K = 1,1024
30
      IBUF(K) = 0
      CALL BININ(ITAPE, IBJF, LREC, IND)
      IF(IND .NE. 0) G9 T8 60
      CALL BINBUT (BTAPE, IBJF, LREC, IND)
      CONTINUE
40
      CALL WESF (STAPE . 0)
      CALL BININ(ITAPE, IBUF, LREC, INC)
      IF(IND .NE. 0) GB T9 50
      BUTPUT(102) 'NBEBF!
      INPUT(101)
50
      CONTINUE
      GB T8 10
      BUTPUT(102) 'WRANG EAF'
60
      INPUT(101)
      G# T# 10
      END
```

Appendix B

Spectral Characteristics

of the

P Codas of Eurasian Farthquakes and Explosions

SPECTRAL CHARACTERISTICS OF THE P CODAS OF EURASIAN EARTHQUAKES AND EXPLOSIONS

J.F. Evernden

Introduction

Over the past decade, numerous analyses of the short-period digitized seismograms recorded at the Large Aperture Seismic Array (LASA) in Montana have been conducted with the intent of ascertaining the discrimination (earthquake versus explosion) capability inherent in those seismograms. The modes of analytical treatment of the data in these several studies varied in some detail but all studies processed the data in an identical manner prior to application of the variable analytical procedures.

LASA originally consisted of 21 small arrays (25 instruments closely grouped within a circle of 7 kilometer radius) distributed in a logarithmic spiral over a circle having a diameter of 200 kilometers. In all studies published to date, the resultant 525 signals were merged into one by, first, direct summing of all seismometers of a subarray ("infinite velocity" sums) and, then, beam-steering of the resultant 21 signals ("time-shift and sum"), striving to thus accentuate on a particular LASA beam the signals from a particular area.

Given this final single trace for signals emanating from a particular area, analyses of various types were conducted:

a. Ratio of energy in first five seconds of seismogram to energy in next 20 seconds ("complexity"), the idea being that signals from explosions would be of shorter duration than those from earthquakes. It was found that, on the average, this was indeed true but that there are earthquakes having the same

complexity ratio as the typical explosion, and vice versa. Therefore, the criterion fails frequently on an event-by-event basis and thus constitutes an unsatisfactory discrimination criterion (Evernden, 1969, for example).

- b. More complex treatments of the pattern of energy in the P coda have been published:
 again seeking to characterize shape of the continuing signal. An improved
 discrimination capability was achieved but overlap still occurred between earthquake
 and explosion values.
- c. Because of the narrowness of the signal band-pass on the beam-steered LASA sum and because of concentration on energy-related discriminants, efforts to develop a discriminant based on spectral properties of the signals were limited to use of data between 0.5 and 2 Hz. When comparing energy in the band-passes .35 .85 Hz and 1.45 1.95 Hz, general separation (the explosions having the greater high frequency content) was found, but such a discriminant failed to separate extreme values of each event type (Lacoss, 1969). In a recent study, Savino and Archambeau (1974) (details in Archambeau, 1975, and Bache, et.al., 1974) have investigated the discrimination inherent in using low Q (Q = 10) filters centered at 0.5 and 2 Hz applied to normal LASA main beam seismograms and in comparison of the relative amplitudes of the resultant "seismograms". They found that they could achieve discrimination for all but some deep-focus earthquakes.

An important fact that emerged at an early date in studies of LASA data was that the signal-to-noise ratio on the best subarray is invariably about two times greater than that on the main LASA beam, i.e., heterogeneities in earth structures under LASA are causing drastic focusing and de-focusing phenomena. By extensive testing, it was established that all signals detected by computer

processing of the main beams were easily detected by an analyst using visual display of the subarray beams. In addition, the analyst had an essentually zero false alarm rate while the computer had a very high false alarm rate near its "detection" threshold.

Associated with this effect was the observation that it is always impossible to achieve a \sqrt{n} increase in signal-to-noise ratio when steering the array. If a sub-set of adequately separated seismometers are used, a \sqrt{n} suppression of noise can be achieved but this does not result in a \sqrt{n} increase in signal-to-noise. Thus, there is unavoidable degradation in signal amplitude near 1 Hz when trying to steer the entire array, implying even more severe degradation at higher frequencies.

Investigation of the signals from earthquakes as displayed on the main beams indicated there to be very little energy at and above a frequency of 2 Hz. Therefore, the decision was made in early 1969 to decimate the data as collected at the seismometer site (20 samples per record) to 10 samples per second to reduce data transmission and storage problems.

In spite of the phenomena reported above, no published study has investigated the signals as recorded on the subarray beams. The remarkable results to be reported in the next few pages follow upon the simple act of looking at those signals.

Comparison of Full-Beam and Subarray Signals

All seismograms used in this study have been played out in analogue format for detection of clipped signals and data errors ("gliches"). As recorded on infinitevelocity subarray-beams, none of the signals used displayed any clipping. For events with $m_{\tilde{b}}$ values of about 6 or greater, at least some individual seismometers did display clipping even though the infinite velocity subarray beams did not. Complete recordings of all individual seismometers are not available. The quantitative effect of such clipping of occasional seismometers on the subarray sums is unknowable without detailed knowledge of each seismometer trace. Therefore, the subarray beams of the larger events will be used and analyzed in the same manner as those of the smaller events. Thus, all data for events of $m_h \ge 6$ must be considered as in error at some unknown level. Though the details of spectra may be perturbed from the correct values for the larger events, it is hard to imagine how discrimination criteria could be strongly perturbed. All gliches were removed prior to spectral analysis. All analysis to be reported in this paper is based on Fourier analysis of hammed time-window seismograms. The timewindow is 12.8 seconds. Successive time-windows have a 7/8's overlap, i.e., the time-window shifted forward 1.6 seconds for each successive spectrogram (Figure 1 through 4). Only data obtained at 20 samples per second will be investigated as regards discrimination capability in the present study, analysis being limited, therefore, to data acquired prior to early 1969. For this initial paper, the only timewindow considered is that containing maximum energy.

Because of a marked contrast in the spectra of normal microseismic noise and signals, the presence of a signal is generally obvious when looking at spectral composition of a time-segment. Thus, Figures 1 through 4 illustrate signal arrival and decay for spectograms from which the mean value of noise at all frequencies has been removed. Each curve on these figures is the Fourier

spectrum, plotted as the square of the Fourier spectral amplitude (A), of successive time-windows as defined above. Figures 1 and 2 are for an earthquake and Figures 3 and 4 for an explosion. The typical contrast in rate of signal decay is obvious, but is not used in the present study. The tendency to higher frequencies in the explosion is also clear. It should be understood that amplitudes on Figures 1 through 4 are not expressive of (ground motion)² but rather of (amplitude)² as recorded on the seismogram, the response curve of the seismometer and electronics (Figure 5) causing a marked difference between relative spectral amplitudes in the ground and on the seismogram.

For purposes of quantitative analysis, the spectral data of each event were treated in terms of several spectral windows, all Fourier amplitudes falling in each window being simply added together with no normalization for width of the spectral window. Because of the peak in instrument response at 4-5 Hz (Figure 5) and the lengthening of the spectral windows at higher frequencies, the mode of data presentation adopted accentuates any high frequency

(Ed: Sentence continues on next page)

content of the signal. Corrections to relative ground motion can be made by data provided in the paper and are so done in later portions of the paper.

The spectral windows investigated are (the digitization rate preventing investigation of higher frequencies):

Spectra1	Window	1	0.4	-	0.6	Hz,
		2	0.6	-	1.0	Hz,
		3	1.0	-	1.4	Hz,
		4	1.4	-	2.0	Hz,
		5	2.0	-	3.0	Hz,
		6	3.0	-	4.5	Hz,
		7	4.5	-	6.0	Ηz,
		8	6.0	-	9.0	Hz.

Lower frequencies were not investigated routinely because of high noise amplitudes and steepness of response curve of short period LASA seismometers below 0.5 Hz. Limitation to data below 4.5 Hz in the first stages of analysis here reported is arbitrary and done only when comparing differences in main beam and subarray data.

Table 1 presents comparative spectral data uncorrected for noise level for several large Russian explosions as recorded on the main LASA beams and on the infinite-velocity beam of the F4 subarray, this subarray having the highest signal-to-noise ratio of the available subarray beams for the events studied. The entries in the several r_i columns of this and subsequent tables are ratios of the sum of Fourier spectral amplitude components in each window (1 through 6 in Tables 1 and 2, 1 through 8 in Tables 3 and 4) divided by the sum of spectral amplitude components in window 2 (i.e., $A_{0.6}^{1.0}$). It is apparent that the decorrelation effects that prevent \sqrt{n} gain in signal-to-noise ratio near 1 Hz (see above) cause near elimination of all energy above 2 Hz on the main LASA beam, even reducing mean amplitude in the 1.4 - 2 Hz spectral window by a factor of 2. It is obvious that assertions used as the basis for decimating LASA data as recorded originally, i.e., no signal strength beyond 2 Hz, were in error. As

will be shown in a subsequent section, the signal-to-noise ratio in the 6 \sim 9 Hz pass-band for Russian explosions of m_b 6.0 as recorded on the F4 subarray is generally approximately 10, suggesting the presence of detectable signal at even higher frequencies.

Table 2 presents similar data for a set of Eurasian earthquakes. The point to be noticed is that there is a detectable increase in relative amplitudes of the high frequency windows for only the largest earthquakes, i.e., only noise is being recorded in these windows for most earthquakes. Inspection of the data of earthquakes alone might give a basis for keeping only 10 samples per second of data, but the data of Russian explosions show clearly the error of doing this. The lack of detectable high frequency energy in Eurasian earthquakes at LASA must derive from the spectral characteristics of those earthquakes, not from a characteristic of the propagation path to LASA.

Because of the phenomenon displayed in Table 1, all further analysis will use only spectral data from the best subarray available (Fl, 2, 3, 4).

A second point requiring emphasis is the impact of using an energy criterion. If the data of either Table 1 or 2 are treated on a direct energy basis (i.e., Σ (amplitude)² values), it is obvious that any contributuions to such a summation for frequencies of greater than 2 Hz will be undetectable, thus giving another erroneous basis for decimating the LASA data. A criterion based on Σ (amplitude) values combined with a normalization factor for each spectral window seems far more appropriate. Event though amplitudes at higher frequencies are low relative to those between 1 and 2 Hz, the levels measured may be many times noise level and may be extremely important in discrimination.

Discriminant D, Using 0.4 to 9 Hz Data

With the general observations noted above in mind, the spectral composition of the subarray signals of 36 explosions and 23 earthquakes for which we had valid 20 samples per second data (i.e., events earlier than March 1969) were investigated.

Table 3 gives the conventional and spectral data for each event studied. The m_b values for all USSR explosions are carefully intercalibrated by use of data of a fixed network and normalizing to values expected of a network of low amplitude stations (Evernden, 1975). The $A^{1.0}_{.6}$ column is the summation of spectral components in the [.6-1.0] Hz window expressed in arbitrary units, the last two digits being the power of ten by which to multiply the initial three-digit number. Spectral values are as appropriate to the seismogram, not to ground motion. Spectral values in all windows (i.e., r_i entries) are expressed as a ratio to the spectral sum in the [.6 - 1.0] Hz window. Values are corrected for noise level in so far as the limited data available permit (from 10 seconds before to 30 seconds after P arrival). When the observed values appear to be simply noise, the noise value is indicated in parentheses followed by an N.

Table 4 presents average spectral values for groups of Eurasian explosions and shallow-focus earthquakes, the grouping being by amplitudes in the [.6-1.0] Hz window. The mean mb value for USSR explosions in each group is indicated. The groupings are identical for explosions and earthquakes. The gross contrast in spectral composition of explosions and earthquakes is clearly apparent. Of equal significance is the clear presence of 6-9 Hz energy for all of the larger explosions, the average value of the amplitude sum for the 10 largest explosions of Group A being about 10 times the ambient noise level. It can also be seen in Table 4 that the spectral composition of both explosions and earthquakes is a function of magnitude of the explosions. In a later portion of this paper, these data will be analyzed in terms of source spectra, etc. but, for the moment, discussion is restricted to examination of a simple spectral discriminant using the full band width of data obtained from LASA recordings.

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Note in Table 4 that the spectral values for all explosion means is greater at 1.0 - 1.4 Hz than at .6 - 1.0 Hz while being less for earthquakes. On the contrary, explosion means are less at .4 - .6 Hz than are those for earthquakes. Therefore, the following discriminant is examined.

$$D_{j} = \sum_{i=1}^{8} n_{i} r_{ij} \qquad i = 1 \text{ to } 8$$

where j designates the event number, i the spectral window with i = 1 for .4 - .6 Hz and 8 for 6 - 9 Hz. The n_i are normalization factors, calculated by taking the ratio of the \bar{r}_3 and \bar{r}_i values (\bar{r}_i values being the mean values of Table 4), the appropriate value for each j event being dictated by its $A_{.6}^{1.0}$ value or m_b lue. The values of n_1 and n_2 are used as negative numbers, while all others are positive, this usage being intended to accentuate the relative spectral difference of explosions and earthquakes noted above.

Table 5 gives the resultant D value for each event, the events being grouped according to their $A^{1.0}_{.6}$ values. The parentheses following each D value contain two numbers characterizing the number of spectral windows in the (-) and (+) groups with data above noise level.

Table 5A, for the events of Groups A of Table 4 ($A^{1.0}_{.6} > .100 \times 10^{5}$), shows all Eurasian explosions to have positive D values while all earthquakes have negative D values, the two least negative values being for deep focus earthquakes (D_{103} and D_{113}). There is apparently clear contrast in D values for explosions at Semipalatinsk and Novaya Zemlya. The presumed explosions at 38.8 N 65.1 E and 47.9 N 47.8 E had the lowest D values in Group A.

Table 5 B, for events of Group B of Table 4 with $A_{...6}^{1..0}$ between .5 x 10^4 and .10 x 10^5 shows similar D values. All shallow focus earthquakes studied to date give more negative D values than explosions.

Table 5C, for events of Group C of Table 4 with $A_{.6}^{1.0}$ values between .1 x 10^4 and .5 x 10^4 , shows similar results. The presumed explosion at 57.7N 65.3E (D_{17} Table 5C) shows a much smaller D value than do most explosions at Semipalatinsk. The single explosion studied at or near 50.1 N 79.0 E(D_{27}) has the lowest D value calculated for USSR explosions.

Tables 5D and E show similar results, an Algerian explosion (D_{158}) giving a D value of + 1.8.

Therefore, this simple D discriminant achieves strongly negative values for essentially all earthquakes, even for all except one deep-focus earthquake, and zero (event No. 27) to strongly positive values for all explosions.

Implications So Far

Previous analyses of LASA P coda data have failed to exploit the spectral content of the signals for discrimination purposes because of three m-jor errors: use of the main LASA beam in analysis, use of an energy discriminant without normalization as a function of frequency, and resultant use of data only from .4 to 2.0 Hz. The analysis above shows that a discriminant using data from .4 to 9 Hz with normalization as a function of frequency achieves separation of the set of earthquakes and explosions studied.

It should also be noted that the bandwidth available is adequate to discriminate the largest events, (including deep-focus earthquakes) whereas a bandwidth limited to .6 and 3 Hz cannot achieve such success. Additionally, it is noted that, rather than decimating LASA data in 1969, the digitizing rate should have been increased. A signal-to-noise ratio of 10 at 6 - 9 Hz for m_b 6.0 events suggests presence of measurable energy at even higher frequencies.

For reference, the last line of entries in several \tilde{r}_i columns of Table 4 below the earthquakes \tilde{r}_i values contains data on the mean noise levels, expressed in the same units as $A^{1.0}_{.6}$, in each spectral window. Though somewhat premature relative to the total discussion—it is pointed out here that these values imply a f^{-3} dependency (where f is frequency). This indicates, as will be seen via analysis given later, there to be an f^{-1} dependency of signal/noise ratio for Semipalatinsk signals at 2 - 9 Hz. Thus, a signal/noise ratio of 10 at 6 - 9 Hz suggests detectable energy well above noise level at above 10 Hz.

Generalities on Source Spectra of Explosions and Shallow-Focus Earthquakes

The data base presented in Table 3 is certainly of limited size and the drawing of expansive conclusions from it may seem unwarranted. However, the attempt will be made to illustrate the internal consistency of the data set with both itself and other seismological data, and thus to substantiate general conclusions.

First, note that the m_b values for Soviet explosions and the logarithm of the $A^{1.0}_{.6}$ values (Table 4) are nearly proportional, 1.4 m_b units being associated with a factor of about 35 decrease in mean value of recorded $A^{1.0}_{.6}$ values between events included in Groups A & E. Therefore, the amplitude scaling near 1 second at LASA is, on the average near the m_b network scaling, a not unexpected result.

Next, inspection of the $A_{.6}^{1.0}$ and \bar{r}_i or r_i values of Group B Earthquakes $(.50 \times 10^4 \le A_{.6}^{1.0} \le .99 \times 10^4)$, Group C Earthquakes $(.10 \times 10^4 \le A_{.6}^{1.0} \le .49 \times 10^4)$, Earthquake 90 ($A_{.6}^{1.0} = .94 \times 10^3$), and Earthquake 100 ($A_{.6}^{1.0} = .40 \times 10^3$) shows that all of these events appear to have a common spectral composition at high frequencies. This conclusion is independent of mode of reduction of the data to estimates of source spectra, deriving as it does simply from noting that the product ($A_{.6}^{1.0} \times r_i$) is nearly constant for all of those groups of data at the higher frequencies. Figures 6A and 6B, in which the data of all of these events is adjusted in an identical manner, show these relationships. Thus, commonality of the high frequency asymptote for earthquakes below magnitude 5.5 or so is suggested. The larger earthquakes (Group A) nave a relative amplitude of \overline{r}_i values for the higher frequencies similar to that for the Group B earthquakes but appear to have higher amplitudes at all frequencies, thus following a parallel but different asymptote than the smaller earthquakes. This difference may be the result of source persistence for large earthquakes, and

the result of analyzing a 12.8 second time window.

In contrast, the explosion data show no tendency for explosions of different sizes to reach the same high frequency asymptote, at least not within the band-width investigated here (Figure 7). In addition, the rate of fall-off of spectral amplitudes with increasing frequency for explosions is far less than for earthquakes.

In any effort to estimate the shape of the source spectra of earthquakes and explosions from the data of Tables 3 and 4, a degree of arbitariness must be included. The factors to be considered are frequency dependent attenuation due to inelastic processes during propagation and loss of high frequencies associated with making the infinite velocity sum for the subarray beam. The former effect is generally assumed to be of the form $e^{-\frac{1}{2}}$ where $e^{-\frac{1}{2}}$ independent of frequency; the latter effect is probably more an $e^{-\frac{1}{2}}$ effect. The mode of analysis will be to assume certain attenuation effects with the intent of having reasonable values of attenuation associated with a reasonable source spectrum for earthquakes and explosions.

Interpreted Source Spectra of Earthquakes

Figure 6B illustrates the calculated source spectrum for earthquakes when taking account of widths of each spectral window used and when using $\ll = .824$ in the attenuation term $e^{-\alpha f}$, and using $\beta = .38$ in the term $f^{-\beta}$. These values are selected by trial and error to yield an f^{-3} high frequency slope for earthquake spectra and to allow for frequency sensitive attenuation in the subarray sum. Comparison of Figures 6A and 6B illustrates the role of the $f^{-\beta}$ term.

The interpreted result is then a source spectrum for earthquakes having an f^{-3} asymptote at high frequencies while flattening at low frequencies, all of which is within

some current models. The implied mean Q for the entire propagation path from Eurasia to LASA is

 $Q = \pi(10,000)/15(.824) = 2500$

(path length of 10,000 kilometers with average velocity of 15 km/sec). This is an acceptable value.

Therefore, the spectral data of earthquakes of Table 3 and 4 can be processed to yield credible values for attenuation and source spectra.

Interpreted Source Spectra of Explosions

To begin with, consider only the data for the explosions near 50N 48E, (here designated as Semipalatinsk, Site A). Since nearly all explosions studied are from this area, the values for Table 4 will be used as typical of this site.

Semipalatinsk, Site A

The data of Figures 6 and 7 suggest three bases for spectral discrimination between earthquakes and explosions. Firstly, there is an $f^{-1.3}$ greater rate of high frequency attenuation of earthquake spectra relative to those of Semipalatinsk/Site A explosions. Secondly, explosions have a higher corner frequency than do shallow focus earthquakes for the same source spectral level around 1 Hz. Thirdly, the spectral values below the corner frequency decrease with decreasing frequency for explosions. The accentuation of these latter characteristics within the range $.5 \le f \le 4$ for small magnitude events explains why failure to detect frequencies higher than 4.5 Hz does not decrease the discrimination capability of the D discriminant at small magnitudes even though higher frequencies are not measurable. The behavior at large magnitudes explains in part why the large Novaya Zemlya explosions have lower D values, i.e., for a pass-band limited to periods of less than 2 seconds, the complete low frequency behavior is not incorporated into the discriminant.

These data suggest that the discrimination between earthquakes and explosions via the D discriminant resides in the contrasting source spectra of these two types of seismic events, not in contrasting attenuation due to systematic differences in location.

Semipalatinsk, Site B

As noted above, all except one of the presumed explosions from the general area around Semipalatinsk are from near 50N 78E, while a single event (Number 27) is a presumed explosion from near 50N 79E, here termed Site B. Though this event is successfully discriminated as an explosion, it had an unusually low D value. Being from a locality so near the other explosions, one cannot appeal to changes in deep crustal or mantle properties to explain the different spectral shape. The differences between the two sites seem more reasonably to be a response to differences in properties of the rocks in which the explosions were implaced or in rocks at very shallow depths. Events No. 27 can be used in support of this hypothesis. Inspection of the data of this event shows the basic difference between the spectra of events from Sites A and B is an apparent nearly f⁻¹ greater frequency dependency of the calculated source spectrum for the Site B explosion if interpretation is by the model of Figure 7. However, it would appear probable that the source spectrum of this explosion is fundamentally similar to that of those from Site A and that the calculated f^{-1} greater slope of the data of this event is a response to near-site properties, the only obvious way to get such a drastic effect being in the inelastic zone around the explosion. Whatever the case, it is of interest that multiplication of the $r_{i,i}$ values of Event No. 27 by a factor of e. 28f to correct them to an f dependency at high frequency similar to that for events from Site A yields adjusted r_{ij} values which, when used in the formula of Table 5, result in calculation of a high positive value for D_{27} .

Such a situation suggests that the low D values of the presumed explosions of Tables 3 and 4 at sites other than near Semipalatinsk and Novaya Zemlya may well be the result in part of explosions in softer rocks than those at Semipalatinsk. In all cases, the low D values of such explosions are associated with spectral decrease with increasing frequency being more exaggerated than that for Site A explosions.

It is suggested that departure from f^{-1.67} dependency of calculated source spectra via the calculational procedures described above implies an additional causes e^{-cf} dependency from one or more/beyond that appropriate to Semipalatinsk/Site A. By multiplying data of all spectral windows by the factor required to bring the high frequency data to an f^{-1.67} dependency, one can determine the spectral amplitudes around 1 Hz that would have been observed if any non-Semipalatinsk/Site A explosion had actually been at Site A. In principle, the intercalibration could extend to referring all USSR explosions to NTS via use of data from such a station as NORSAR. Such a potentiality is being evaluated.

Novaya Zemlya Explosions

Though the low D values for the Novaya Zemlya explosions might be expected to arise from the same effects as noted above, investigation of the data of these events by the model of Figure 7 shows them to have a calculated $f^{-1.66}$ dependency at high frequencies, i.e., in agreement with data for explosions from Site A, Semipalatinsk. Therefore, another explanation for the low D values must exist.

Since the large Novaya Zemlya explosions are larger than any Semipalatinsk explosions and since the \tilde{r}_i and thus n_i values of Tables 4 and 5 show definite correlation with size of event, it seems relevant to extrapolate the \tilde{r}_i values of Table 4 to a higher m_b . Such extrapolation is indicated in Figure 8, where smoothed lines are put through the \tilde{r}_i data of Table 4. If one uses the \tilde{r}_i values for m_b 6.4 as pertinent to Novaya Zemlya events, D_5 increases from 3.55 to 6.26. All other D values for Novaya Zemlya events of Table 5 increase similarly.

A correlated factor leading to lower D values for these explosions has been noted above, i.e., the fact that the spectral flattening and rolling over typical of explosion

spectra is largely at lower frequency than 0.5 Hz for these events, thus preventing the contrast in low frequency behavior of explosions and earthquakes from entering a criterion limited to frequencies of or greater than 0.5 Hz.

Gains of the LASA short period instruments are so uncertain at periods of greater than 2 seconds that no investigation of this point is made at this time.

Further Comments

It was pointed out in Evernden (1975) that assumption of a common high frequency asymptote with slope of f^{-3} for spectra of all earthquakes provided a simple spectral model that agreed with the observed $M_S:m_b$ relationship at all magnitudes. The inverse of that demonstration is that the observed $M_S:m_b$ relationship cannot be explained via an earthquake scaling model which has a common high frequency asymptote with a slope of other than f^{-3} . If extensive documentation of the situation suggested in this paper results, i.e., a common high frequency asymptote for spectra of all earthquakes, the conclusion would be unequivocal that source spectra of earthquakes as calculated via spectral analysis of signals must have a slope at high frequencies of f^{-3} .

Assumption of an f^{-3} high frequency slope for earthquake spectra led to an $f^{-1.67}$ slope for spectra of Semipalatinsk explosions. Arguments given by Brune (1970) show this slope must be $f^{-1.5}$ or greater and studies such as that of Bach, et.al., (1975) derive theoretical values of $f^{-1.5}$ to $f^{-2.3}$ for explosions in various media. Use of an f^{-2} slope for earthquakes would give lower Q values for the mantle and a high frequency spectral slope of f^{-1} or less for Semipalatinsk explosions, an unacceptable value.

Therefore, the multiple constraints, both observational and theoretical, that can be applied to restrict possible spectral models for earthquakes and explosions appear to suggest the models used here. The mantle Q value is reasonable, and any marked change in the slope of the high frequency asymptote for either explosions or earthquakes would lead to apparently unacceptable values for the other.

A Modified D Discriminant and Estimates of Yield

The results presented above suggest that attenuation effects can be approximately evaluated if data to 6 - 9 Hz or greater are available. Also, they suggest use of a modified D discriminant for events whose LASA recordings appear to have higher f dependency than expected of earthquakes. Simply adjust all data of such events so as to have a high frequency dependency similar to that of an earthquake. Calculation of D using the resultant r_{ij} values should yield D values high enough for discrimination.

It may be useful to point out a possible procedure for estimating yields of explosions at uncalibrated test sites. Having proven an event to be an explosion by use of the D discriminant or by $M_s:m_b$ or other criterion, adjustment of all spectral data to yield a high frequency behavior of the "observed" LASA spectra for Site A explosions, or of $f^{-1.67}$ on calculated source spectra, should yield spectral values in the neighborhood of 1 Hz nearly correctly calibrated as to equivalent yield against any reference test site with a known Y vs. m_b relationship.

Final Implications

From the data of Table 4 and 5, it appears that, because of the progressive change in spectral shape of explosions with decreasing magnitude, a D-type discriminant will successfully discriminate earthquakes and explosions to essentially the threshold of network detection and location (i.e., \geq 4 station detection), there being nearly certainly at least two stations at which an accurate D value could be calculated.

These results, if massively substantiated, will make irrelevant the attainment of the capability to detect surface waves of small events, make irrelevant both planned and inadvertent mixing of long period waves as a confusion factor in discrimination, and make irrelevant accurate calculations of depths of focus of earthquakes. In addition, the demonstrated presence of signal at 3 - 4.5 Hz for explosions of m_b 4.1 (Table 3) at epicentral distances of 85° and greater implies a far greater capability to separate closely spaced events than deemed possible in the past and thus to detect multi-shot sequences previously deemed unseparable. In this regard, it is pertinent to remember Archambeau's prediction (1976) that multiple-explosions in scenarios deemed credible by conventional criteria will result in augmented high frequencies, i.e., will loo!: "more like an explosion than an explosion".

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Tables

- Table 1 Spectral Compositions of the Full LASA Beam (BM) and F4 Subarray (F4) Beam for Selected USSR Explosions (Sampling rate = 10 per second). $A_{0.6}^{1.0}$ is sum of Fourier spectral components (EA) in spectral window 2, i.e., from 0.6 to 1.0 Hz. r_i is ratio of sum of Fourier spectral components in window 1 and 2.
- Table 3 Spectral Composition of Subarray Beams of Selected Explosions and Earthquakes (Sampling rate = 20 per second). $A_{0.6}^{1.0}$ is sum of Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 1.0 Hz. r_i is ratio of sum of Fourier spectral components in window i and 2.
- Table 4 Mean Spectral Composition of Groups of Explosions and Earthquakes of Table 3, Grouping being by Value of $A_{0.6}^{1.0}$. $A_{0.6}^{1.0}$ is sum of Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 to 1.0 Hz. r_i is ratio of sum of Fourier spectral components in windows 1 and 2. No. is number of events in each group.
- Table 5 Value of D Discriminant for Each Event of Table 3.

Figures

- Figure 1 Spectrogram of Earthquake of 6/26/75. Time-window 12.8 seconds, time step between adjacent spectrograms = 1.6 seconds, vertical scale = A² in arbitrary units, where A is amplitude of Fourier component. Noise corrections have been made based on mean values of noise over 30 seconds prior to signal.
- Figure 2 Continuation of spectrograms for Event of Figure 1. Short horizontal arrows on Figure 1 and 2 indicate same time window.
- Figure 3 Spectrograms of Explosion. Time-window = 12.8 seconds, time step between adjacent spectrograms = 1.6 seconds, vertical scale = A² in arbitrary units, where A is amplitude of Fourier component.

 Noise corrections have been made based on mean values of noise over 30 seconds prior to signal.
- Figure 4 Continuation of Spectrograms for Event of Figure 3. Short horizontal arrows on Figure 3 and 4 indicate same time-window.
- Figure 5 Short Period Response Curve LASA
- Figure 6A- Interpreted Source Spectra of Earthquakes: Attenuation Assumed = e.824f. B and C indicate spectra of Groups B and C of Table 4.

 90, 92, and 100 indicate spectra of events of those numbers in Table 3.
- Figure 68- Interpreted Source Spectra of Earthquakes: Attenuation Assumed = $e^{-.824f} \times f^{-.38}$. B, C, 90, 92 and 100 as in Figure 6A.
- Figure 7 Interpreted Source Spectra of Semipalatinsk (Site A Explosions: Attenuation Assumed = $e^{-.824f}$ x $^{-.38}$. A, C, E, indicate spectra of explosions of Groups A, C, and E of Table 4.

Table 8 - r, versus mb.

USSR Explosions

10	9	œ	7	o -	ۍ.	•	ω	~	_	No.
67 04 20	67 03 25	67 02 26	66 12 18	66 12 03	66 10 27	66 10 19	66 08 19	66 03 20	66 02 13	Date YR MO DY
5.7	5.3	6.0	5.9	4.9	6.3	5.6	4.7	6.2	6.3	o ³
F4	F4	F4	F4	F8M	F4	BM F4	FBM 4	F4	8M F4	Array
. 151 . 266	.123 .257	.197	. 204 . 272	. 434 . 680	. 266 . 220	.089	.372	.105	.142 .369	r ₁ Array (.46)
1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	1.000	1.000 1.000	1.000	1.000 1.000	r ₂ (.6-1.0)
2.488 2.601	2.300 2.563	1.935 1.800	1.860 2.570	3.517 4.839	1.572 1.051	2.002 2.151	4 .232 2 .989	1.937 2.047	2.023 1.538	r_3 (1.0-1.4)
1.587 2.766	.1446 2.636	1.203 2.118	1.863 3.888	3.265 6.183	.959 1.794	1.649 2.875	2.721 2.927	· 1.365 2.800	1.286 2.286	r ₄ (1.4-2)
.525 2.506	.538 2.377	.713 1.690	.730 2.370	.744 3.458	.329 .725	.630 2.697	1.241 3.932	.388 7.553	.493 1.721	r ₅ (2-3)
.500	.036(N) .200		.076 .507		. 169	.032	.270 1.365	.067 .368	. 161	r ₅ r ₆ (2-3) (3-4.5)

Table 2 Eurasian Earthquakes

	•							
212	210	209	208	207	206	202	201	€
72 04 05	72 03 20	72 03 17	72 03 04	72 02 26	72 02 22	72 01 20	72 01 20	Date YR MO DY
5.0	6.0	5.2	5.1	5.3	ပ ာ ယ	6.0	4.6	6 €
FB 4	22 25	F4	F 8 8	<u> </u>	F4	Z	8M F4	Array
. 163 . 482	.286 .126	.173	.191 .216	.480 .295	. 244 . 154	. 203 . 056	.207 .200	r ₁
1.000 1.000	1.000 1.000	1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	r ₂
.930 1.011	1.641 2.202	1.263 1.638	1.589 2.056	1.170 1.224	. 69 4 . 956	.965 1.438	.922 .757	r ₃ r ₄ (1.0-1.4) (1.4-2)
.302(N) .512	.513 .895	. 409 . 696	1.302 1.935	. 443 . 183	.519 .790	. 605 1. 569	. 123 . 154	r ₄ (1.4-2)
.133(N) .119(N)	.056 .263	.184	.415 .869	.064(N)	.034(N) .081	. 054 . 187	.090(N) .179	r ₅ (2-3)
.082(N) .120	.043 .194	.113 .250	.122	.029(N) .040(N)	.016 .022	.020 .132	. 081	r ₆
2	46	25 300		(N) 36	.016(N) 213 .022(N)	214	144	^r 6 (3-4.5) Depth

Table 3

2	23	22	21	23	19	8	11	6	15	ī	3	12	=	5	•	~	7	•	55	•	ω	-	 ₹
49.8H 78.1E	49.8H 78.0E	49.8H 78.2E	50.0M 77.7E	49.8N 78.0€	73.4N 54.8E	49.8N 78.0E	57.7N 65.3E	49.9H 77.7E	50.0N 77.7E	49.8M 78.0E	49.8N 78.1E	49.7N 78.0E	49.8M 78.0E	49.7N 78.1E	49.8M 78.1E	49.8N 78.1E	49.9N 77.7E	49.7N 78.0E	73.4N 54.6E	49.8N 78.1E	49.8N 78.1E	49.8N 78.1E	Epicenter
68 04 24	68 01 07	67 12 08	67 11 22	67 10 30	67 10 21	67 10 17	67 10 06	67 09 22	67 09 16	67 08 04	67 07 15	67 06 29	67 05 28	67 04 20	67 03 25	67 02 26	66 12 18	66 12 03	66 10 27	66 00 19	66 08 19	66 02 13	VR MO DY
1.6	4.7	5.1	:	5.2	5.8	5.4	4.7	4.9	5.0		5.2	5. ~	5.2	5.4	5.	5.9	5.7	:	6.5	5.5	4.3	6.1	[o#
•	•		•	•	•	•	1		•	•	•	•	•			•	•	•		•	•		Depth
. 144 04	.223 04	.518 04	.470 03	.663 04	. 139 05	.117 05	. 108 04	.302 04	.318 04	.521 04	.506 04	.355 04	.732 04	.996 04	.659 04	. 187 05	.569 04	.349 03	.205 05	.640 04	.442 03	.116 05	A1.0
(.230)N	(.202)N	.317	N(999°)	. 181	.387	. 194	.260	.246	.447	.179	. 193	.222	. 192	. 285	.211		.330	(.235)N	.376	.215	(.287)M	. 368	(.46)
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	7.000	1.000	7.000	1.000	1.000	i. 000	1.000	1.000	(.6-1.0]
3.209	2.496	1.902	1.829	2.486	1.561	2.313	.810	2.078	2.382	2.309	2.321	2.058	1.939	2.396	2.038	2.030	2.581	4.019	1.111	2.235	2.379	1.806	(1.0-1.4)
2.409	2.091	1.945	1.772	1.758	1.848	1.337	1.488	1.711	1.767	2.023	1.977	1.100	1.561	1.627	1.454	1.747	2.352	3.093	1.355	1.930	1.709	1.636	(1.4-2.0)
2.400	1.133	2.073	.857	1.134	.433	1.046	.536	. 956	1.364	1.129	2.152	.427	1.259	1.498	1.298	1.172	1.449	1.751	. 545	1.700	2.377	1.147	r ₅ (2-3)
. 628	. 196	.326	.249	.223	. 299	. 191	.312	.251	.310	.142	.279	.126	. 134	.300	. 106	. 194	.330	.322	. 108	.231	7.51	.396	(3-4.5)
																							(4.5-6)
(.016)	(.012)	.020	.035	.027	.015	.035	(.045)	(.019)	(.010)	(.004)	.015	.010	.020	. 056	(.006.)	.053	.033	.065	.016	.022	(.044)	. 030	^r 8 (6-9)
Z	z	Z	r	7	Z	Z	3 0	_ ~	Z	_					_						_	Z	Subarray

.0005		. oz.5	.049	. 668	.284	1.000	. 993	.198 05	•	6.3	68 12 19	37.2N 116.5W	163
.012		.076	. 136	.456	3.392	7.000	1.123	.342 04	•	5.6	80 09 06 80 83	37.1N 116.0W	ಪ
.0005		.060	.057	.110	.371	1.000	. 936	. 162 05	•	6.3	68 04 26	37.3N 116.5W	161
.017		.533	1.240	518	1.058	7.000	. 287	.710 04	•	5.1	67 12 10	36.7N 107.2N	<u>8</u>
(M(MOO .)	_	(.033)N	.060	.074	.225	1.000	.393	.964 04	•	1.6	67 09 27	37. IN 116. OH	159
(.028)N J		.092	1.249	3.045	2.066	1.000	. 395	.756 03	•	5.1	65 12 01	24.1N 5.2E	158
.030		. 446	.325	1.722	3.840	1.000	. 195	.761 04	•	6.1	65 10 29	51.4N 179.2E	157
.040		.223	1.492	1.355	1.732	1.000	.238	.112 05	•	5.4	69 03 07	49.8H 78.1E	35
(.013)N F		. 169	.879	1.600	2.253	1.000	.157	.177 04	•	4.9	68 12 18	49.7N 78.1E	34
() N(810:)	_	.308	1.692	1.834	1.968	1.000	.226	.124 04	•	4.3	68 11 09	49.8N 78.0E	#
.012		.228	.262	1.605	1.590	1.000	. 457	. 199 05	•	5.9	68 11 07	73.4N 54.9E	ಜ
.050		. 145	1.213	1.605	1.972	1.000	.321	. 157 05	•	5.7	68 09 29	49.8N 78.1E	<u>س</u>
(.015)N I		.475	2.128	2.626	2.908	1.000	(.125)N	.107 04	•	4.5	68 08 20	50.0M 78.0E	8
.016			1.892	1.841	2.348	1.000	.216	.396 04	٠,	5.0	68 07 12	49.8N 78.1E	3
.005		. 137	. 485	.710	.916	1.000	.176	. 136 05	•	5.4	68 07 01	47.9N 47.8E	2
(.005)N		.092	.914	1.531	1.122	1.000	.454	.689 04	•	5.3	68 06 19	50.0N 79.1E	27
(.008)11		.247	1.060	1.809	2.308	1.000	.254	.429 04	•	5.0	68 06 11	49.8M 78.1E	26
(.003)N F4	_	.057	. 348	.476	7.444	1.000	.079	.112 05	•	5.3	68 05 21	38.8N 65.1E	25
(6-9) Suba	(4.5-6)	(3-4.5)	(2-3)	(1.4-2.0)	(1.0-1.4)	(.6-1.0)	(.46)	.6	Depth	الحا	YR MO DY	Epicenter	₹.
r'a		₂	ω, ,	<u>.</u>	ພີ	~ ⁷	_;	<u>.</u> 1.0		ł	origin si		

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Table 3 (Cont

91	113	112	=))0	109	70/	9		Ž	ē	į ž	<u> </u>	6	8	97	8	. 25	2	2	×	8	₹
51.3N.174.0E	48.2N 146.7E	46.7N 152.5E	40.5N 142.7E	35.0N 23.5E	41.8N 144.1E	26.9W 125.5E	52.4N 173.0E	39.2N 21.2E	45.7N 26.3E	46.6H 144.1E	36.4N 141.7E	12.6N 144.2E	43.6N 132.2E	34.0H 77.0E	6,45 131.1E	55.0N 165.7E	13.94 146.18	29.8N 69.7E	39.34 73.16	43.8W 87.7E	51.2N 178.9E	Epicenter
=	=	=	66 11 19	=	=	=	=	ಕ	อ	8	8	66 07 07	8	8	S	S	ß	2	2	=	5	Origin Time YR MO DY
5.2	5.6	5.6	4.9	5.3	5.8	5.	1.9	5.7	4.8	5.2	5.5	5.3	5.4	5.7	5.6	5.2	6.0	6.0	5.3	6.4	4 .8	J
5	143	8	42	17	32	\$	<u> </u>	20	140	344	28	8	476	215	57	35	69	5	=	29	24	Depth
					.798 04		.282 04	.111 05	.925 03	.435 04	.346 04	.987 03	.397 03	.397 04	.744 03	.442 04	.575 04	.205 04	.347 04	. 117 05	.940 03	A1.0
.702	. 235	.248	.551	. 149	.672	.446	.291	.500	.757	.248	.350	.321	. 463	.215	(.567)N	.577	. 580	.415	. 305	1.483	.562	·
1.000	1.000	7.000	1.000	7.000	1.000	1.000	1.000	7.000	1.000	1.000	1.000	7.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	(.6-1.0)-
1.033	.777	.856	1.624	. 606	.330	.861	.590	.541	.910	. 995	1.446	. 603	1.527	1.544	.825	.574	.2977	.913	. 802	1.292	1.433	r ₃ (1.0-1.4)
.396	.214	. 193	1.214	.229	.221	.240	.649	.204	.765	1.038	(.532)N	.217	.972	1.312	.773	.206	.1697	.373	. 154	.489	1.065	r ₄ (1.4-2.0)
.321	Z	.087	.212	.112	.0497	. 056	.407	.066	1.011	.407	(.157)N	N(610')	.402	.423	.626	. 195	.0467	. 229	.077	.396	N(185.)	^r 5 (2-3)
.010	<u>S</u>	.024	(.052)N	.00	N(210.)	N(810.)	. 157	K(800.)	.065	N(080.)	(.064)N	M(610°)	.264	.053	(. 123) N	. 05	(,004)M	(.026)N	(.012)M	.075	(.162)M	(3-4.5)
(.014)N	.012	8	(.034)M	N(£00.)	M(800.)	N(E10.)	.01	K(100.)	.022	(.012)N	(.057)N	(.012)M	(.050)N	(.005)M	(.032) #	N(500.)	(.002)N	N(810.)	N(800.)	원	(.067)N	r, (4.5-6)
).018)N	2	(.002)N	(.012)N	(.002)N	(.004)N	N(010.)	(.007)N	(.002)N	(.024)N	N(900.)	N(110.)	N(810.)) (100.)	(.005)N	(.022)N	N(100.)	(.004)N	N(650°)	N(61°)	005	(.041) x	(6-9) Su
2	I	Z	Z	Z	F4	2 30	2	z	7	Z	FA	Z	Z	Z	Z	Ŧ	7	I	I	F4	3	Subarray

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								4.3	•	4.8	5.3	5.7	o m	
	.100499 03	.500999 03	.100499 04	.5999 04	.15 ([] = interpolated values	.100499 03	.500999 03	.100499 04	.500499 04	.15 0	A1.0	
	ຆ)3 <.483(2)		.467	05 .744		lated values)4 <u>≤</u> .235(9)	.256	05 .304	ייבן	
		1.000	1.000	1.000	1.000			1.000	1.000	1.000	1.000	1.000	2	
=		. 954	.973	.411	.896	6-4		2.742	[2.500]	2.257	2.133	1.649	ω"	_
III Noise Means		. 685	<.481(6)	.206	. 295	II Shallow Focus Earthquake $(D < 100 \text{ km})$		2.191	[2.000]	1.843	1.816	1.367	- 7"	USSR Explosions
ns		<.305(1)	.189(5)	.069	.183	ocus Earthq		1.662	[1.500]	1.315	1.461	.814	5	os tons
		②	<.054(2)	<.010(1)	<.036(2)	uake ^S (D < 1		.441	[.375]	.311	.216	. 198	6	
		(O)	.011(1)	<.004(0)	<.009(2)	00 km)		.0543(2)	[.040]	<.040(8)	.079		r ₂	
		9	9	<.003(0)	<.003(1)			.0480(2)	[.030]	≤.017(2)	<.018	.026	اتھا	
	<u>o</u>	(3)	(2)	(3)	(3)	30)4	(3)	Ξ	(33)	(10)	(10)	₹	

.32 03

.11 03

.041 03 .027 03

Table 5

A.
$$A^{1.0}_{.6} \ge .1 \times 10^5$$

$$D = -5.424 r_{1j} -1.649 r_{2j} + r_{3j} + 1.206 r_{4j} + 2.026 r_{5j} + 8.328 r_{6j} + 14.34 r_{7j} + 63.42 r_{8j}$$
Earthquakes

Explosions

$$D_5$$
 (2+6) = 3.55

$$D_8$$
 (2+6) = 10.66

$$D_{19}(2+6) = 5.65$$

$$D_{25}$$
 (2+6) = 1.12

$$D_{31}$$
 (2+6) = 9.93

$$D_{35}$$
 (2+6) = 9.99

$$D_{92}$$
 (2+6) = -5.77 depth = 29 km

$$D_{105}(2+3) = -3.44$$
 20

$$D_{112}(2+5)$$
 -1.47 60 $D_{113}(2+6)$ -0.71 443

Table 5 (cont.)

B.
$$.5 \times 10^4 < A^{1.0} < .1 \times 10^5$$

D = $-8.332 r_{1j} - 2.133 r_{2j} + r_{3j} + 1.176 r_{4j} + 1.460 r_{5j}$

+ $9.875 r_{6j} + 27.00 r_{7j} + 118.5 r_{8j}$

Explosions

D ₄	(2+6)	=	10.46
D ₇	(2+6)	#	13.39

$$D_9$$
 (2+5) = 3.96

$$D_{11}$$
 (2+6) = 7.81

$$D_{13}$$
 (2+6) = 10.44

$$D_{14} (2+5) = 5.19$$

$$D_{20} (2+6) = 10.48$$

$$D_{22}$$
 (2+6) = 10.08

$$D_{27} (2+5) = -.05$$

Earthquakes

$$D_{95} (2+3) = -6.40$$
 depth = 69 km
 $D_{109} (2+3) = -7.07$ 32
 $D_{110} (2+4) = -2.25$ 17

Table 5 (cont.)

C.
$$.1 \times 10^4 < A^{1.0}_{.6} < .5 \times 10^4$$

$$D = -9.604r_{1j} - 2.257r_{2j} + r_{3j} + 1.225r_{4j} + 1.716r_{5j} + 7.257r_{6j} + 56.43r_{7j} + 132.8r_{8j}$$

Explosions	<u>Earthquakes</u>	
D ₁₂ (2+6)= 3.63	D_{93} (2+3) = -4.06	depth = 41 km
D ₁₅ (2+5)= 4.28	D_{94} (2+6) = -5.33	10
D ₁₆ (2+5)= 5.10	$D_{96} (2+4) = -6.64$	35
D ₁₇ (2+4)= 1.06	D_{93} (2+4) =06	215
D_{23} (2+5)= 6.15(Using N at r_{1j})	$D_{102}(2+1) = -4.17$	28
D_{24} (1+5)= 13.13(Using N at r_{1j})	$D_{103}(2+3) = -1.67$	344
D ₂₆ (2+5)= 5.19	$D_{106}(2+5) = -1.21$	31
D ₂₉ (2+6)= 11.78	$D_{107}(2+3) = -5.29$	45
D_{30} (1+4)= 9.77(Using N at r_{1j})		42
D ₃₃ (2+4)= 4.93	D_{91} (2+5) = -6.86	45
D ₃₄ (2+5)= 5.05		•

Table 5 (cont.)

D.
$$.5 \times 10^3 < A^{\frac{1}{6}} < .1 \times 10^4$$

D = $-11.3r_{1j}$ $-2.500r_{2j}$ $+_{3j}$ $+1.250r_{4j}$ $+1.667r_{5j}$ $+6.667r_{6j}$ $+62.50r_{7j}$ $+83.33r_{8j}$

Explosions

Earthquakes

$$D_{158}(2+4) = 1.82 \text{ (Algeria)} \qquad D_{90}(2+2) = -5.88 \qquad \text{depth} = 24 \text{ km}$$

$$D_{97}(1+3) = -5.10* \qquad \qquad 57$$

$$D_{101}(2+2) = -5.03 \qquad \qquad 46$$

$$D_{104}(2+5) = -5.50 \qquad \qquad 140$$
*Using .5 at r_{1j}

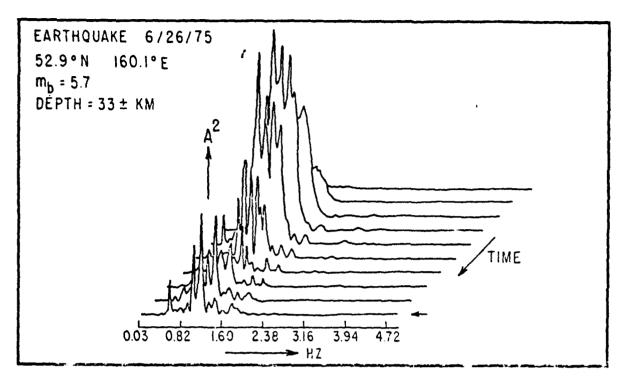
E.
$$.1 \times 10^3 < A < .5 \times 10^3$$

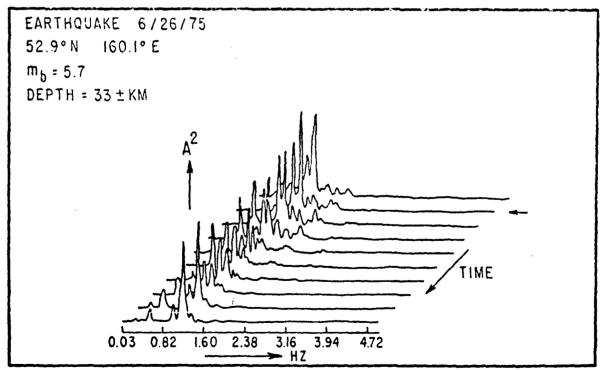
 $D = -13.715r_{1j} -2.742r_{2j} +r_{3j} +1.251r_{4j} +1.650r_{5j}$
 $+6.667r_{6j} +50.50r_{7j} +57.13r_{8j}$

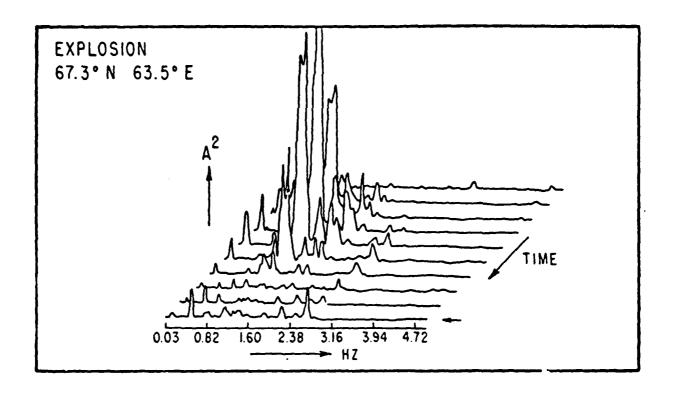
Explosions

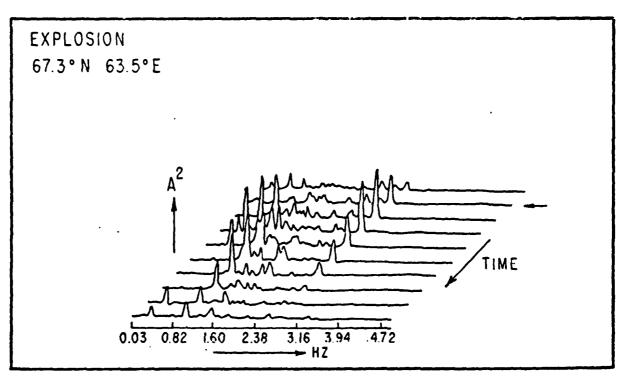
Earthquakes

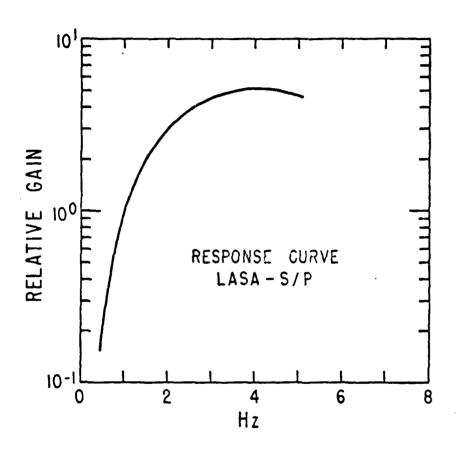
$$D_3$$
 (1+4) = 7.25 (Using N at r_{1j})
 D_6 (1+6) =13.23 (Using N at r_{1j})
 D_{21} (1+6) = 8.18 (Using r_{1j} = .25)

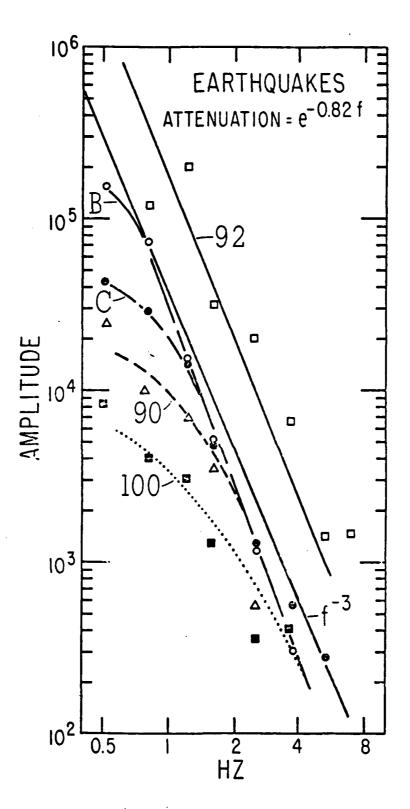


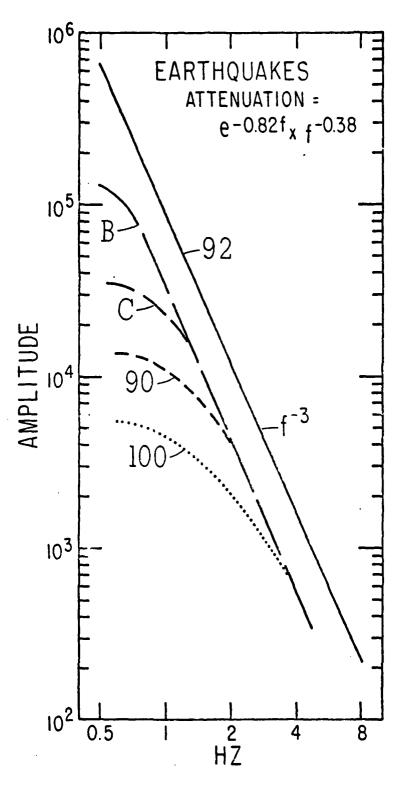


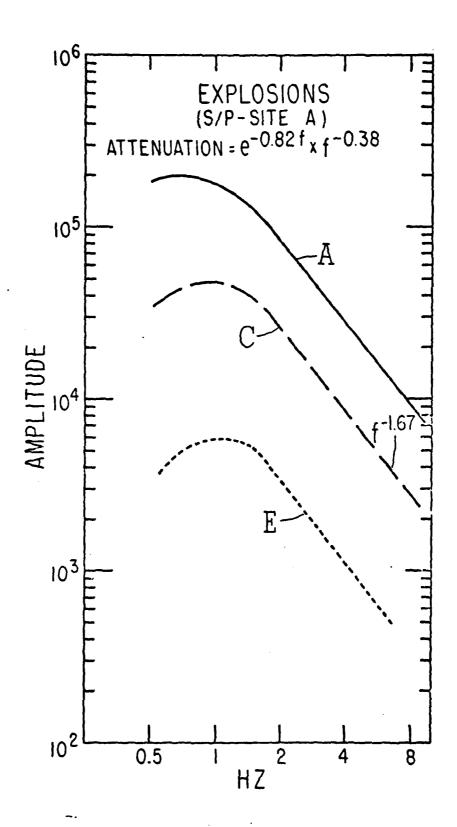


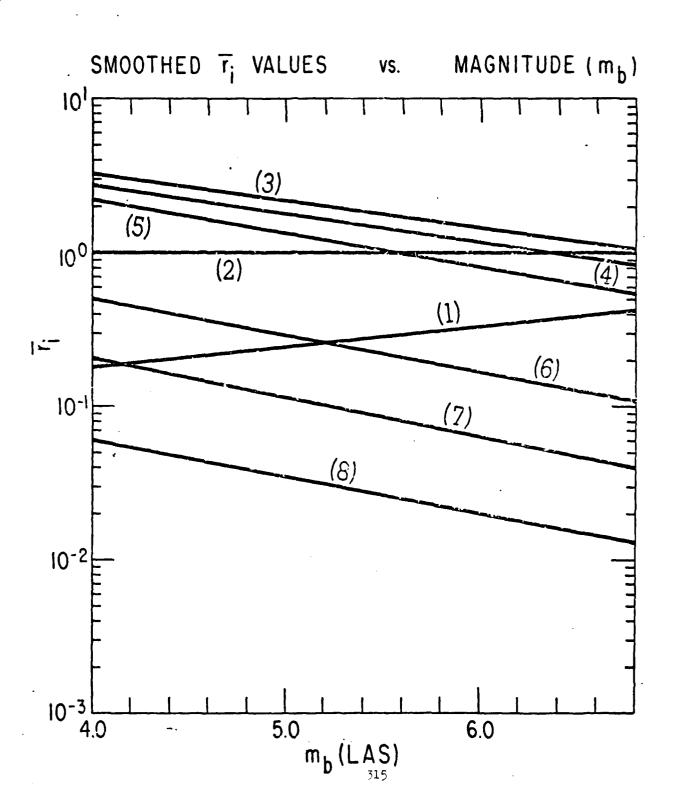












Appendix C
Farthquake and Explosion Data Sets

Appendix C

Earthquake and Explosion Data Sets

During the course of this investigation a large quantity of data has been obtained. Recause many of these data were acquired with no mean effort, we have complied them onto several tapes and thus hope to provide others with a more easily accessible data base. We have attempted to format the data in a way that would allow the non-computer expert to use them with ease. There are two data sets: the data supplied by ACDA are the data obtained through Col. Ives and CDC.

ACDA data:

These data are recorded in ascii on 9 track tapes at a density of AOO poi. Every record is 512 bytes long and eight ascii characters make up one word. None of the tapes contains any computer system dependant records. An end of file mank terminates the data on each tape. For each seismogram the first record is a header record containing the following information:

total number of records of data to follow

event identification number

date - month

date - dav

date - vear

site identification (alpha=numeric)

number of channels of data

total number of data points on seismogram

sampling rate in samples per second

time of first data point - hours

time of first data point - minutes

time of first data point - seconds.

The subsequent records contain the data. Each integer data point is recorded as 8 ascii characters and may have leading blanks and a minus sign.

These data have been divided into two sets: type A data or earthquakes and type B data, which are explosions. In the following pages the headers for all of these data are listed.

CDC data

These data are recorded in ascii on 9 track tapes at a density of 800 hpi. Each record is 1920 bytes long. For each seismonram there is a header the format of which is described in Table 1. The header does not constitute a separate record. Subsequent information is the 1200 data points which are in 8 character ascii format. Again, each data point may contain leading blanks and an optional minus sign. An end of file mark terminates the data on each tape. A listing of the headers for all of the seismonrams in this data set is included as part of this report.

The user should take care to apply the appropriate sampling rates to these data. Data record prior to 15 Acril 1969 were sampled at $\frac{20}{318}$ Hz and data obtained

subsequent to that data were sampled at 10 Hz.

TABLE 1

Description of CDC Data Format

Each record of 1920 bytes is subdivided into 20 segments containing 96 characters. There are five types of segments.

Type 1 - Header

Description	Format	Byte
Record number	13	1 - 3
Event number	16	4-9
Space	1 ×	10
Channel type	م ک	11-12
Year	13	13-15
Month	13	16-18
Day	13	19-21
Julian Date	18	22 - 29
Latitude	F5.1	30-34
Space	1 ×	35
Latitude direction	A 1	36
Longitude	F6.1	37-42
Space	1 ×	43
Longitude direction	A 1	44
Seismic Region number	13	45-47
Geographic Pedion numbe	r I4	48-51
Death	F4.0	52 - 55
Deptn	I 4	56-59
Distance in degrees	F7.1	60-66

Azimuth	FR.1	67 - 74
Arrival time - hour	13	75-77
Arrival time - minute	13	78-80
Arrival time - second	F5.1	81-85
Origin time - hour	13	86-88
Origin time - minute	۲Ţ	89-91
Oriain time - second	F5.1	92-96
Oriain time - second	F5.1	92-96

Type 2 - Description Format - 6410

Description	Byte
Event number	1-6
Channel type	8-9
Date	14-21
Julian date	25-31
Latitude	35~40
Lonaitude	44~50
M agnitude	54~56

Type 3 - Description

Format - 6A10

Description	Byte
Depth	1-3
Distance	7-11
Azimuth	15-20
Arrival time	24-33
Uriain time	37-46
Designator	50-59

Type 4 - Description

Format - 7A10,A2

Description	Byte
Seismic region rum	ber 1-2
Seismic name	4-35
Geographic region	number 37-39
Geographic name	41-72

Type 5 - Data

Format - 1218

This segment is repeated 100 times to write 1200 data points.

Headers for ACDA Data - Earthquakes

NREC 47 LENGTH 3001	ID 71 SR 10	8 6 หมายัน 2	084 29 MINITE 15	YEAR 75 SEC 37	SITE	NCHAN 1
NREC 47 LENGTH 3001	In 71 58 10	HTVOM 8 RUOH S	18 MIMITE 5d DVA	YEAR 75 SFC 37	SITE	NCHAN 1
NAFC 47 LENGTH 3001	In 71 SR 10	нтиОм 84Он S	DAY 79 MINUTE 18	YEAR 75 3FC 37	3112 54	NCHAN 1
NREC 47 LENGTH 3001	ID 71 SP 10	HTMOM BAIDH S	18 39 004	YEAR 75 SEC 37	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 71 SF 10	нТИФМ 6 9-10н 5-10н 5-10	MINDIE 50 044	YEAR 75 SFC 37	SITE 94	NCHAN 1
NREC 47 LENGTH 3001	ID 71 SP 10	S HONE P HONTH	18 20 24 24	YEAR 75 SEC 37	SITE	ivCHAN 1
NREC 47 LENGTH 3001	10 71 SP 10	нтипм ф Япрн 2	74	YEAR 75 SEC 37	SITE	nchan 1
NRFC 47 LENGTH 3001	IN 71 SR 10	o	PAG PG PIUNIN RJ	YEAR 75 SFC 37	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	10 71 58 10	HTMON AUDH S	044 29 MINHIF 18	YEER 75 SFC 37	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	In 71 58 10	MTMOM 6 9089 2	DAY DAY DAY	YEAR 75 SFC 37	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 71 SP 10	HTMNM 6 HUUH S	DAY 29 WINHIF 18	YEAR 75 SFC 37	SITE	NCHAN 1
YREC 47 LEHGTH 3001	71 5F 10	ыпыты 6 наск 2	DAY 29 MINHIE 18	YEAR 75 SFC 37	SITE	NCHAN 1

NREC 47 LENGTH 3001	10 71 SR 10	MONTH 6 HOUR 2	DAY 29 MINUTE 18	YEAR 75 SEC 37	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	10 72 SR 10	MONTH 6 4009 10	وج	YEAR 75 SEC 45	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 72 SR 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SFC 45	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 72 SP 10	MONTH 5 HOUR 10	DAY 29 Minute 13	YEAR 75 SEC 45	SITE 82	NCHAN 1
NREC 47 LENGTH 3001	ID 72 SR 10	MONTH 6 4008 10	DAY 29 MINUTE 13	YEAR 75 SFC 45	917E 83	NCHAN 1
NREC 47 LENGTH 3001	ID 72 SP 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SFC 45	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	10 72 SP 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SEC 45	SITE C1	NCHAN 1
NREC 47 LFNGTH 3001	In 72 SR 10	MONTH 6 HOUR 10	DAY 29 MINHTF 13	YEAR 75 SEC 45	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	IC 72 SR 10	MONTH HOUR 10	DAY 29 MINUTE 13	YEAR 75 SFC 45		
NREC 47 LENGTH 3001	10 72 SF 10	MONTH 6 Hour 10	DAY 29 MINUTE 13	YEAR 75 SEC 45	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 72 SP 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SFC 45	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	10 72 SP 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SEC 45	SITE D2	NCHAN 1

NREC 47 LENGTH 3001	ID 72 SR 10	MONTH 6 HOUR 10	DAY 29 MINUTE 13	YEAR 75 SFC 45	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	10 72 SR 10	MONTH 6 Hour 10	DAY 29 MINUIF 13	YEAR 75 Sec 45	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	10 73 SP 10	HTMON 6 RUOH 12	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE	NCHAN 1
NREC 47 LENGTH 3001	IC 73 SR 10	H0114 H0118 H0117	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE B1	NCHAN 1
NREC 47 LFNGTH 3001	10 73 SP 10	НТИОМ 6 НОЦЯ 12	CAY 29 MINUTE 33	YEAR 75 SFC 45	SITE R2	NCHAN 1
NREC 47 LENGTH 3001	15 73 58 10	МПДПИ В НОПЯ 12	74 Y 29 MINUTE 33	YEAR 75 SFC 45	SITE R3	NCHAN 1
NREC 47 LENGTH 3001	10 73 SR 10	HTMOM 6 HUUR 12	DAY 29 MTNUTE 33	YEAR 75 SFC 45	SITE 84	NCHAN 1
NREC 47 LFNGTH 3001	IP 73 S= 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE C1	NCHAN 1
NREC 47 LENGIH 3001	ID 73 SP 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE C2	NCHAN 1
NRFC 47 LENGTH 3001	10 73 SR 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SFC 45	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	10 73 SP 10	HTANM 6 HUR 12	DAY 29 MINHTF 33	YEAR 75 SEC 45	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 73 SR 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SFC 45	SITE	NCHAN 1

NREC 47 LENGTH 3001	[P 73 SP 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SFC 45	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 73 SP 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 73 SR 10	MONTH 6 HOUR 12	DAY 29 MINUTE 33	YEAR 75 SEC 45	SITE N4	NCHAN 1
NREC 47 LENGTH 3001	10 74 SP 10	MONTH 6 HOUR 0	DAY 28 MINHIF 49	YEAR 75 SFC 23	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 74 82 10	MONTH 6 HOUR 0	DAY 28 MINUTE 49	YEAR 75 SFC 23	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 74 SR 10	НТИОМ 6 ЯПОН 0	DAY 28 MINUTE 49	YEAR 75 SFC 23	SITE P2	NCHAN 1
MREC 47 LENGTH 3001	ID 74 SP 10	HTMOM 6 9094 0	04Y 28 M1011F 49	YEAR 75 SFC 23	SITE 83	NCHAN 1
MREC 47 LENGIH 3001	ID 74 SP 10	MONTH 6 HOUR 0	047 28 Miniite 49	YEAR 75 SFC 23	SITE P4	NCHAN 1
NREC 47 LENGTH 3001	ID 74 SP 10	НТИОМ 6 ЯПОН 0	DAY 28 MINUTE 49	YEAR 75 SFC 23	SITE	NCHAN 1
NREC 47 LENGTH 3001	IP 74 58 10	MONTH 6 Hour 0	DAY 28 MINUTE 49	YEAR 75 SFC 23	CS	NCHAN 1
NREC 47 LFNGTH 3001	ID 74 SP 10	МПИТН 6 НОПО 0	DAY 28 MINHTF 49	YEAR 75 SEC 23	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 74 SP 10	МОМТН Б ИОНК 0	DAY 28 MINUTE 49	YEAR 75 SFC 23	SITE C4	NCHAN 1

NRFC 47	10 74	MONTH 6	74Q 85	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	5R 10	HDHR 0	MINUTE 49	SEC 23		
NREC 47	ID 74	MONTH 6	DAY 85	YEAR 75	SITE	NCHAN 1
LENGTH 3001	5R 10	HOUR 0	MINUTE 49	SEC 23		
NREC 47	10 74	MONTH	28 28	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SP 10	HOUR 0	MINUTE 49	SEC 23		
NREC 47	ID 74	мпитн 6	V & Y 8 S	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001			MINUTE 49			
NREC 47	ID 75	MONTH 6	YA0 85	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SR 10		MINUTE	SEC 28		•
NRFC 47	10 75	MONTH 6	PAY 85	YEAR 75	SITE 81	NCHAN 1
LENGTH 3001	SR 10	HOUR	·-	SFC 28		·
NREC 47	In 75	MONTH	85 Y 4 U	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SR 10	HOUR		SFC 28		
NREC 47	10 75	МПЛТН 6	วน	YE 4 R 75	SITE 83	NCHAN 1
LENGTH 3001	SP 10	H0FR 9	MINUTE 4	SFC 28		
NREC 47	10 75	MONTH	74Q 85		SITE B4	
LENGTH 3001	5P	H0UR 9	MINHTE 4	SEC 28	·	
MREC	10 75	MONTH	74 Q	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SR 10	HOUR	MIRUTE 4	SEC 28		·
NRFC 47	10 75	HTHANK	DAY	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	4 HDI 8	MINNIF	SFC 28	., -	•
NRFC 47	[^ 75	нтипи	DAY 28	YEAR 75	SITE C3	NCHAN 1
LF4GTH 3001	ຽ ສ ໍ້ 1 ປ	400 R	MTNITE 4	SEC 28		•

NREC 47 LENGTH 3001	ID 75 SR 10	MONTH 6 HOUR 9	DAY 28 Minute 4	YEAR 75 SEC 28	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 75 SR 10	MONTH 6 HOUR 9	DAY 28 Minute 4	YEAR 75 SFC 28	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 75 SP 10	MONTH 6 HOUR 9	DAY 28 MINUTE 4	YEAR 75 SEC 28	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 75 SR 10	MONTH 6 HOUR 9	DAY 28 MINUTE 4	YEAR 75 SEC 28	SITE 03	NCHAN 1
NREC 47 LENGTH 3001	10 75 SR 10	MONTH 6 HOUR 9	DAY 28 Minute 4	YEAR 75 SEC 28	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SP 10	MONTH 6 HOUR 13	DAY 28 MINUTE 57	YEAR 75 SFC 35	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SR 10	MONTH 6 HOUR 13	DAY 28 Minute 57	YEAR 75 SFC 35	SITE R1	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SR 10	MONTH 6 HOUR 13	DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	10 76 SR 10	MONTH 6 HOUR 13	DAY 28 MINHTF 57	YEAR 75 SFC 35	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SR 10	MONTH 6 HOUR 13	DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	10 76 SP 10	MONTH 6 HOUR 13	DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE C1	NCHAN 1
NREC 47 LFNGTH 3001	10 76 SR 10	момтн 6 новр 13	DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE	NCHAN 1

NREC 47 LENGTH 3001	76	MONTH 6 HOUR 13	DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE r3	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SP 10	6	28	YEAR 75 SEC 35	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	76	6	DAY 28 Minute 57	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	76		DAY 28 MINUTE 57	YEAR 75 SEC 35	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 76 SP 10	MONTH 6 HOUR 13	0 A Y 2 R M T N II T E 5 7	75	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	76 SR	MANTH 6 HOUR 13	28	, ,	SITE D4	NCHAN 1
NREC 38 LENGTH 2401	77	6	DAY 28 MINUTE 43	75	SITE	NCHAN 1
NREC 38 LENGTH 2401	77	6	DAY 2 MINU	YEAR 75 SFC 47	SITE	NCHAN 1
NREC 38 LENGTH 2401	ID 77 SR 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE SITE	NCHAN 1
NREC 38 Length 2401	In 77 SP 10	MANTH 6 Pútir 16	DAY PH MINUTE 43	YEAR 75 SFC 47	SITE 83	NCHAN 1
NREC 38 LENGTH 2401	17 77 59 10	MONTH 6 Hour 16	DAY PH MINUTE U3	YEAR 75 SFC 47	SITE 84	NCHAN 1
NREC 38 LENGTH 2401	10 77 SP 10	MONTH 6 HOUR 16	43 W1/HITE SH DVA	YEAR 75 SEC 47	SITE	NCHAN 1

NREC 38 LENGTH 2401	ID 77 SR 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE C2	NCHAN 1
NREC 38 LENGIH 2401	1D 77 SP 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 Sec 47	SITE C3	NCHAN 1
NREC 38 LENGTH 2401	ID 77 SR 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE C4	NCHAN 1
NREC 38 LENGTH 2401	ID 77 SR 10	MONTH 6 40UR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE D1	NCHAN 1
NREC 38 LENGTH 2401	1D 77 SP 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SFC 47	SITE D2	NCHAN 1
NREC 38 LENGTH 2401	ID 77 SP 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE D3	NCHAN 1
NREC 38 LENGTH 2401	ID 77 SR 10	MONTH 6 HOUR 16	DAY 28 MINUTE 43	YEAR 75 SEC 47	SITE D4	NCHAN 1
NREC 47 LENGTH 2999	ID 78 SP 10	MONTH 6 HOUR 18	DAY 28 MINUTE 4	YEAR 75 SFC 12	SITE	NCHAN 1
NREC 47 LENGTH 2999	ID 78 SR 10	MONTH 6 HOUR 18	DAY 28 Minute 4	YEAR 75 SEC 12		NCHAN 1
NREC 47 LENGTH 2999	ID 78 SR 10	MONTH 6 HOUR 18	DAY 28 MINUTE 4	YEAR 75 SFC 12	SITE B2	NCHAN 1
NRFC 47 LENGTH 2999	ID 78 SR 10	MONTH 6 HOUR 18	DAY 28 MINUTE 4	YEAR 75 SFC 12	SITE R3	NCHAN 1
NREC 47 LENGTH 2999	IN 78 SR 10	MONTH 6 HOUR 18	DAY 28 MINUTE 4	YEAR 75 SEC 12	SITE B4	NCHAN 1

ID	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	C 1	i
SR	HOUR	MINUTE	SFC		
10	18	4	12		
ID	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	C S	1
SP	HOUR	MINUIE	SEC		
10	18	4	12		
ΙÙ	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	C 3	1
SR	HOUR	MINUTE	SEC		
10	18	4	12		
10	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	C 4	1
		MINUTE	SFC		
10	18	4	12		
10	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	D1	1
_			SFC		
10	18	4	12		
10	MONTH	DAY	YEAR	SITE	NCHAN
78	6	28	75	0.2	1
SR	HOUR	MINUTE	SEC		
10	18	4	12		
10	MONTH	DVA	YEAR	SITE	NCHAN
7 8	6	28	75	D 3	1
-	HOUR	MINUTE	SFC		
10	18	4	12		
ΙO	MONTH	DAY	YEAR	SITE	NCHAN
78	0	28	75	D4	1
	HOUR				
10	1.8	4	12		
ID	MONTH	DAY	YEAR	SITE	NCHAN
79	6	27	75	4.0	1
SP	HOUR	MINUTE	SEC		
10	6	1 0	16		
ID	MONTH	DAY	YEAR	SITE	NCHAN
ID 79	MONTH 6	DAY 27	YE AR 75	SITE B1	NCHAN 1
				SITE B1	
79	6	27	75		
79 SR	6 HUUR	27 MTNUTE	75 SFC		
79 SR 10 ID 79	6 HUUR 6	27 MTNUTE 10	75 SFC 16 YEAR 75	B 1	1
79 SR 10 ID 79 SR	HOUR 6 MONTH	P7 MINUTE 10 DAY P7 MINUTE	75 SFC 16 YEAR 75 SFC	B1 SITE	1 NCHAN
79 SR 10 ID 79	HOUR 6 MONTH	P7 MINUTE 10 DAY P7	75 SFC 16 YEAR 75	B1 SITE	1 NCHAN
79 SR 10 ID 79 SR	HOUR F MONTH HOUR	P7 MINUTE 10 DAY P7 MINUTE	75 SFC 16 YEAR 75 SFC	B1 SITE	1 NCHAN
79 SR 10 ID 79 SR 10 ID 79	HOUR FONTH FOUR HOUR FOUR	PAY	75 SFC 16 YEAR 75 SFC 16 YEAR 75	81 817E 82	NCHAN 1
79 SR 10 ID 79 SR 10	HOUR 6 HOUR 6 MONTH 6R HOUR 6 MONTH 6R MONTH	P7 MINUTE 10 DAY P7 MINUTE 10 DAY	75 SFC 16 YEAR 75 SFC 16 YEAR	SITE R2	NCHAN 1
	78 SR 10 ID 78 SR 10 IO 78 IO	78 SR HOUR 10 18 ID MONTH 78 SR HOUR 10 18	78 6 28 SR HOUR MINUTE 10 18 4 ID MONTH DAY 78 6 28 SR HOUR MINUTE 10 MONTH DAY 78 6 28 SR HOUR MINUTE 10 MONTH DAY 78 6 28 SR HOUR MINUTE 10 MONTH DAY 78 6 28 SR HOUR MINUTE 10 18 4 ID MONTH DAY TR SR HOUR MINUTE 10 18 4 10 MONTH DAY 28 SR HOUR MINUTE 10 18 4 10 MONTH DAY 28 SR HOUR MINUTE 10 18 4 10 MONTH DAY 28 SR HOUR MINUTE 10 10 MONTH DAY 28 SR HOUR MINUTE 10 10 MONTH DAY 78 SR HOUR MINUTE 10 10 MONTH DAY 78 28 R MINUTE 10 10 MONTH DAY 78 R MONTH DAY 78 R MONTH DAY 79 R R MONTH DAY 79 R R MONTH DAY 79 R MONTH MONTH DAY 79 R MONTH MONTH DAY 79 R MONTH MONTH	78 6 28 75 SR HOUR MINUTE SFC 10 18 4 12 ID MONTH DAY YEAR 78 6 28 75 SR HOUR MINUTE SEC 10 18 4 12 ID MONTH DAY YEAR 78 6 28 75 SR HOUR MINUTE SEC 10 18 4 12 ID MONTH DAY YEAR 78 6 28 75 SR HOUR MINUTE SEC 10 18 4 12 ID MONTH DAY YEAR 78 6 28 75 SR HOUR MINUTE SEC 10 18 4 12 ID MONTH DAY YEAR	78 6 28 75 C1 SR HOUR MINUTE SFC 10 10 18 4 12 ID MONTH DAY YEAR SITE 78 6 28 75 C2 SR HOUR MINUTE SEC 10 10 MONTH DAY YEAR SITE 78 6 28 75 C3 SR HOUR MINUTE SEC 10 10 MONTH DAY YEAR SITE 78 6 28 75 C4 SR HOUR MINUTE SEC 10 10 18 4 12 ID MONTH DAY YEAR SITE 78 6 28 75 D2 SR HOUR MINUTE SEC D2 ID MONTH DAY YEAR SITE

NREC 47 LENGTH 3001	ID 79 SP 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SEC 16	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	IN 79 SR 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SFC 16	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SR 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SFC 16	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SP 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SFC 16	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SP 10	MONTH 6 HOUR 6	DAY 27 Minuif 10	YEAR 75 SEC 16	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SR 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SEC 16	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SP 10	MONTH 6 HOUR 6	04Y 27 MINUTE 10	75	50 20	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SP 10	MONTH 6 HOUR 6	DAY 27 MINUTE 10	YEAR 75 SEC 16	SITE D3	NCHAN 1
NREC 47 LENGTH 3001		HTMNM 6 RIJOH 8		YEAR 75 SFC 16	SITE 04	
NREC 47 LENGTH 3001	ID 80 SR 10	MONTH 6 HOUR 7	DAY 26 Minute 40	YEAR 75 SEC 58	SITE	NCHAN 1
NREC 47 LENGIH 3001	ID 80 SR 10	MONTH 6 HOUR 7	DAY 26 MINUTE 40	YEAR 75 SEC 58	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	10 80 50 10	MONTH 6 HUUP 7	DAY 26 MINUTE 40	YEAR 75 SEC 58	SITE B2	NCHAN 1

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	8.0	6	26	75	83	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26_	75	B4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	CI	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	8.0	6	26	75	C.S	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	η ()	58		
NREC	In	MONTH	DAY	YEAR	SITE	NCHAN
47	ρO	6	26	75	C 3	1
LENGTH	SP	HOUR	MINUTE	SEC 58		
3001	10	7	40	70		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	A ()	5	56	75	C 4	1
LENGTH	SP • o	HOUR 7	MINUTE 40	SEC 58		
3001	10	,	40	ن د		
NREC	In	MONTH	DAY	YEAR	SITE	
47	6 D	5	26	75	D1	1
LENGTH 3001	SP 10	HOUR 7	MINUTE 40	SFC 58		
2001	1 0	,	40	30		
NREC	ID	MONTH	DAY	YEAR	SITE	
47 LENGTH	₽0 SR	HOUR	26 MTNUTE	75 SEC	0.5	1
3001	10	7	40	58 58		
3001	. 0		-			
NREC	IU	MONTH	DAY			NCHAN
47	A ()	6	26	75	D.3	1
LENGTH 3001	S# 10	HOUR 7	MINUTE 40	SEC 58		
3001	10	,	40	חר		
NRFC	IU	HTMPM	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	0.4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	81	6	26	75	Δ ()	1
LENGTH	SP 10	HQUR 8	MINUTE	SEC 23		
3001	10	c	16	<i>c</i> 3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	81	6	26	75	RI	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	16	53		

NREC 47 LENGTH 3001	I n 81 SR 10	MONTH 6 HOUR 8	DAY 26 Minute 16	YEAR 75 SEC 23	SITE R2	NCHAN 1
NREC 47 LENGTH 3001	ID 81 SR 10	MONTH 6 HOUR 8	DAY 26 MINUTE 16	YEAR 75 SEC 23	SITE 83	NCHAN 1
NREC 47 LENGTH 3001	ID 81 SP 10	MONTH 6 HOUR 8	DAY 26 MINUTE 16	YEAR 75 SEC 23	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 81 SP 10	MONTH 6 HUUR 8	26	YEAR 75 SEC 23	SITE	NCHAN 1
NREC 47 LENGTH 3001	Р 1	MONTH 6 HOUR 8	DAY 26 Minute 16	YEAR 75 SEC 23	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	10 81 SR 10	MONTH 6 HOUR 8	26	YEAR 75 SEC 23	SITE C3	NCHAN 1
NRFC 47 LENGTH 3001	ID P1 SP 10	МОЛТН 6 НООР 8	DAY 26 Minute 16	YEAR 75 SFC 23	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 81 SP 10	MONTH 6 HOUR 8	DAY 26 MINHTE 16	YEAR 75 SEC 23	SITE Di	NCHAN 1
NREC 47 LENGTH 3001	ID 81 SR 10		DAY 26 MINHTE 16			NCHAN 1
NREC 47 LENGTH 3001	1D 81 SR 10	MONTH 6 HOUR 8	DAY 26 MINUTE 16	YEAR 75 SEC 23	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID #1 SR 10	MONTH 6 9110H 8	DAY 26 MINUIF 16	YEAR 75 SEC 23	SITE D4	NCHAN 1
NREC 38 LENGTH 2401	10 82 10	MONTH 6 HOUR 9	DAY 26 MTNUTE 27	YEAR 75 SFC 44	SITE	NCHAN 1

NREC 38	85 LD	6	26	YEAR 75	SITE B1	NCH4N
LENGTH 2401	SP 10	9 9	27	44		
NREC 38	77 78 78	H T N D M	0 A Y 2 6	75	SITE B2	NCHAN 1
5 to 1 FENGIH	SP 10	HOUR 9	MINUTE 27	SEC 44		
NREC 3H	85 UI	MONTH 6	DAY	YEAR 75	SITE B3	NCHAN 1
	5 P		MINUTE 27			
NREC 38	85 U		1) A Y 26		SITE	NCHAN
LENGTH 2401	_	HOIJR 9	MINUTE 27		17 4	1
NREC 38	85 J1	MONTH 6	D 4 Y	YEAR 75	SITE	
LENGTH	SP 10	ноця 9	MINUTE 27	SEC	C I	•
NREC 38	85 UI	_	D 4 Y	75	SITE C2	NCHAN 1
LENGTH 2401	SR 10	HOUR 9	MINUTE 27	SEC 44		•
NREC 38	01	НТИПМ 6	DAY 26	YEAR 75	SITE C3	NCHAN 1
	SP 10	HUUR 9	MINUTE 27		CJ	,
NREC 38	85 UI	МОИТН	56 044	YEAR 75	SITE C4	NCHAN 1
	SP 10	HOHR 9	MINUTE 27	SEC	ι, ω	•
NREC 34			0S			
LENGTH 2401	SP 10	HOUR 9	MTNUTF 27	SEC 44	1) 1	,
MREC 38	01 01	MONTH	0AY	YEAR 75	SITE D2	NEHAN
LENGTH 2401	SR 10	ө яурн Р	MINUTE 27	SFC 44	172	1
NKEC	10	MONTH	DAY	YEAR	SITE	NEHAN
38 LENGTH 2401	82 SP 10	4011-K	26 MTNUTF 27	75 SFC 44	D3	1
NREC	IO.	MONTH	DAY	YEAR	SITE	NEHAN
5401 FENGTH 34	ے ۾ 80 10	о Я1)ОН 9	26 MINUTE 27	75 SEC 44	D4	1

NREC 47	83	MONTH 6 HOUR	SP SP DAA	YEAR 75 SFC	SITE	
LENGTH 3001	S₽ 10	10	5	2, 5		
NREC		мпытн		YEAR		NCHAN
47	A 3	HOHR	26	75 SEC	B1	1
LENGTH 3001	SP 10	10	MINUTE 2	5.25		
NREC		MONTH	DAY	YEAR		NCHAN
47	R 3	6	26	75	82	1
LENGTH 3001	\$P 10	HUUR 10	MINUTE 2	25.0		
NREC	Ĭυ	момтн	DAY	YEAR	SITE	NCHAN
47	яз	6	26	75	P 3	1
LENGTH	SP		MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY		SITE	NCHAN
47	ЯZ	O	26	75	R4	1
LENGIH	SP	HOUR	MIMUTE			
3001	10	10	5	Ž		
NREC	ID	MONTH	ŊΑΥ	YEAR		
47	я 3	6	26	75	C 1	1
LENGTH	SR		MINUTE			
3001	10	10	5	2		
MREC		MONTH		YEAR		MCHAN
47	яз	o HOUR	26 MINHIE	75 656	ι5	1
LENGTH	SR 1.)	10	5 WINITE	2		
3001	10					
MRFC	Ιņ	ментн	DAY	YEAR	SITE	
47	μş	6	26	75	C 3	1
LENGTH			MINUTE			
3001	10		5			
MREC	ΙD	MO.AIH	() A Y	YEAR	SITE	
47	A 3	6		75 556	C4	1
LENGTH	SP	HUÍ B	ATNUTE S	SEC 2		
3001	1 0	1 0				
NREC	ΙD	MUNTH	DΔY	YEAR	SITE	NCHAN
47	ΑЗ	6	26	75	U 1	1
LENGTH	SP • A	HOUR	411111F 2	SFC 2		
3001	10	10				
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	ρţ	5	26	75	0.5	1
LENGTH	SP	400F 1 e	MTMHTF 2	SFC 2		
3001	10					
NHEC	Ιυ	MONTH	DVA	YEAR	SITE	NCHAN
47	ዶ ዷ C D	6	26	75 6 5 0	D3	1
LENGIH	SP • O	HOUR	MTMIITE	SFC		
3001	1 ()	1 0	2	2		

NREC 47 LENGTH	ID A3 SP	MONTH 6 HOUR	DAY 76 MINUTE	YEAR 75 SFC	SITE D4	NCHAN 1
3001	10	10	2	5		
NREC 47	ID 84	MÛVLH o	DAY	YE AR 75	SITE	NCHAN 1
LENGTH	5.0	ноок	MINUTE	SFC		•
3001	10	13	16	5		
NREC	-	MONTH	DAY	_	SITE	· -
47	84	6 HOUR	26 MINUTE	75 SEC	P.J	1
LENGTH 3001	SR 10	13	16	5		
NRE	10	MONTH	DAY		SITE	NCHAN
47	8.4	<i>6</i> Япон	26	75	P 2	1
LENGTH	Sp			SFC		
3001	10	1 3	16	5		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	24	6	56	75	А 3	1
LENGIH	SP	HOLE	MINUTE	SEC 5		
3001	1 0	1 3	16	כ		
NREC	10	MUNTH	ŊΔY	YEAR	SITE	NCHAN
47	, Я.Д С.В.	6 HUUH	26	75	P4	1
LENGTH	SP		VINITE	SEC		
3001	10	1 3	16	7		
NREC	Ιņ	MONTH	DAY	YEAR	SITE	
47 LENGTH	84 S≈	6 нося	26 VINUTE	75 85.5	C1	1
3001	10	13	10	5		
	•		. •			
NHEC	15	AUV I H	DAY	YEAR	SITE	
47 LENGTH	94 SF	HC175 P	26 MTMLITE	75 SEC	۲.5	1
3001	10	13	16	5		
NREC			DAY			
47	25 21	нопр	26 Minute		(3	1
LENGTH 3001	3r 10	13	16	5		
J (() ()	1.47	, ,	10			
NREC	ΙÙ	MUNITH	ŊΔΥ	YEAR	SITE	
47	A 4	b	26	75	C 4	1
LFNGTH 3001	\$? 10	40LR 13	MINUTE 16	SFC 5		
301/1	10	1.5	10	,		
NREC	10	MONTH	DAY	YEAR	SITE	
47	e D R 4	5 401.0	26	75 850	D 1	1
LENGTH 3001	SP 10	H01-R 13	MINUTE 16	SFC 5		
2001	10	()				
NREC	ΙĎ	MONTH	DAY	YEAR	SITE	_
47	رن د ه	b 110110	26	75 650	0.5	1
LENGTH 3001	SP 10	40UR 13	71NUTF 16	SEC 5		
2001	1 17	נו	1 0	,		

NREC 47 LENGTH 3001	ID 84 SP 10	MONTH 6 HOUR 13	DAY 26 MINUTE 16	75 SEC	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 84 SR 10	6	DAY 26 WINUIF 16	75	SITE N4	NCHAN 1
NREC 47 LENGTH 3001	ID 85 SR 10		DAY 26 MINHTF 7		SITE	
NREC 47 LENGTH 3001	IP 85 88 10	6	DAY 26 MINHIF 7	75 SEC	SITE 81	NCHAN 1
NREC 47 LENGTH 3001			04Y 26 Winhiff 7		SITE 82	
NREC 47 LENGTH 3001	95 SP	MONTH 5 40UR 15	DAY 26 MINUTE 7	75 SFC	SITE R3	NCHAN 1
NREC 47 LENGTH 3001	A 5	6 HOLR	DAY 26 MINUTE 7	75	SITE 84	NCHAN 1
MREC 47 LENGTH 3001			DAY 26 MINUTE 7		SITE C1	NCHAN 1
NREC 47 LENGTH 3001	IN 85 SR 10	MONTH 6 HOUR 15	DAY 20 Minute 7		SITE C2	
NREC 47 LENGTH 3001	IN 85 SR 10	MONTH 6 HOUR 15	DAY 26 MINHIF 7	YEAR 75 SFC 24	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	10 85 88 10	МОЛТН 0 НОИР 15	DAY 26 MINUTE 7	YEAR 75 SFC 24	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 - 85 SP - 10	MONTH 6 HUUR 15	DAY 26 MINHTF 7	YEAR 75 SEC 24	SITE	NCHAN 1

NREC 47 LENGTH 3001	ID 85 SP 10	MONTH 6 HOUR 15	DAY 26 MINUTE 7	YEAR 75 SEC 24	SITE	NCHAN 1
NREC 47 LENGTH 3001	In 85 88 10	MONTH 6 HOUR 15	DAY 26 MINUTE 7	YEAR 75 SEC 24	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	In 85 88 10	MONTH 6 HOUR 15	DAY 26 MINUTE 7	75	SITE n4	NEHAN 1
NREC 47 LENGTH 3001	10 86 88 10	o H0t÷R	DAY 26 MINUTE 36	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	In SP 10	ь	DAY 26 MINHIF 36	75	SITE Bi	NCHAN 1
MREC 47 LENGTH 3001	10 80 10	b	DAY 26 MINHTE 30	75	SITE B2	NCHAN 1
MREC 47 LENGTH 3001	IP 86 SR 10	0	DAY 26 Minute 36	YEAR 75 SFC 7	SITE	
NRFC 47 LFNGTH 3001	ID 80 SP 10	MONTH 6 HOUR 15	DAY P6 MINUTE 36		SITE B4	NCHAN 1
MREC 47 LENGTH 3001	ID SR 10	MONTH 6 HOUR 15	DAY 26 Minute 36		SITE	NCHAN 1
NREC 47 LENGTH 3001	In 86 89	момтн 6 нопя 15	DAY 26 MINHTF 36	YEAR 75 SEC 7	SITE	NCHAN 1
NRFL 47 LENGTH 3001	In R6 SP 10	MONTH 6 HUUR 15	DAY 26 MINITE 36	YEAR 75 SFC 7	SITE C3	NCHAN 1
NRFC 47 LENGTH 3001	ID 86 38 10	MONTH 6 HOLR 15	DAY 26 MTUNTE 36	YEAR 75 SEC 7	SITE C4	NCHAN 1

NREC	ΙD	молтн	DAY	YEAR	SITE	NCHAN
47	Po	ь	26	75	01	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	15	36	7		
NREC	10	MONTH	DAY	YEAR	SITE	- -
47	96	6	26	75	0.5	1
LENGTH 3001	SR 10	HOUR 15	MINHITE	SFC 7		
7001	10	1.5	36	•		
NREC 47	ID Pb	MONTH	DAY	YEAR	SITE	
LENGTH	SR	HOUR	26 MINUTE	75 SFC	D.3	1
3001	10	15	₹6	7		
NREC	Ιυ	MONTH	DAY	YEAR	SITE	NCHAN
47	86	ь	26	75	D4	1
LENGTH	SP	HOUR	WINHIE	SFC		
3001	10	15	36	7		
MREC	ΙĎ	млитн	DAY	YEAR	SITE	NCHAN
47	87 CD	0	25	75	Δ0	1
LENGTH 3001	SR 10	HOUR 10	MINUTE 39	SEC 19		
3001	10	10	14	19		
NREC	IU	HTHOW	DAY	YEAR		NCHAN
47	87	6	25	75 250	ΡĮ	1
LENGTH 3001	SR 10	HOUR 10	MINUTE 39	SFC 19		
3001	10	10	14	19		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	P7 SR	b	25	75	H 5	1
LENGIH 3001	10	ноия 1 о	MINUTE 39	SEC 19		
2001	, ,	10	17	1 7		
NREC	ΙŪ	MONTH	DAY	YEAR	SITE	NCHAN
47	. P. 7	6	25	75	РЗ	1
LENGTH 3001	S₽ 10	ноця 10	MINUTE 39	SFC 19		
3001	10	10	34	1.4		
NREC	10		DAY			NCHAN
47	. P 7	6	25	75	84	1
LENGTH 3001	SP 10	ноия 1 0	MINUTE 39	SFC 19		
3001	()	(()) 4	14		
MREC	ID	MONTH	DΑY	YEAR	SITE	NCHAN
47	P 7	b	25	75	C 1	1
LENGTH 3001	SP • O	HOUR	MINUTE	SEC		
2001	10	10	39	19		
NREC	IU	MONTH	DAY .	YEAR	SITE	NCHAN
47	87	6	25	75	C.5	1
LENGTH	SP 10	HOUR	MINUTE	SFC		
3001	10	10	39	19		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	A 7	6	25	75	С3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	30	19		

NREC	Ιυ	мпитн	DAY	YEAR	SITE	NCHAN
47	A7	6	25	75	C 4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	39	19		
NREC	Ιn	MONTH	ÐAY	YEAR	SITE	NCHAN
47	P 7	ь	25	75	01	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	10	39	19		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	2 7	6	25	75	0.5	1
LENGTH	SP	ноик	MINUTE	SEC		
3001	10	10	39	19		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	87	6	25	75	N 3	1
LENGTH	SR	HOUR	MINUIF	SEC		
3001	10	10	39	19		
NREC	ID	мпитн	DAY	YEAR	SITE	NCHAN
47	# 7	Ď	25	75	D4	1
LENGTH	SR	HOUP	MINUTE	SFC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	Яb	6	25	75	A ()	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	16	30	25		
MREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	88	6	25	75	B1	i
LENGTH	SP	нойы	MINUTE	SEC		
3001	10	16	30	?5		
NREC	10	нтаом	DVA	YEAR	SITE	NCHAN
47	βB	ь	25	75	82	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	10	MONTH	DΔY	YEAR	SITE	NCHAN
47	βя	6	25	75	R 3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	8.8	ь	25	75	B 4	1
LENGTH	SP	HOUR	MINUTF	SFC		
3001	10	16	30	25		
NREC	ΙO	нтипм	DAY	YEAR	SITE	NCHAN
47	88	6	25	75	C 1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	8.8	6	25	75	CS	1
LENGTH	SP	HOLIS	MINUTE	SEC		
3001	10	16	30	25		

NRFC 47 LENGTH 3001	ID 88 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTF 30	YEAR 75 SEC 25	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 88 SP 10	MONTH 6 HOUR 16	DAY 25 Minute 30	YEAR 75 SEC 25	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	IP 88 58 10	MONTH 6 HOUR 16	DAY 25 Minute 30	YEAR 75 SEC 25	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID #8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 88 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SFC 25	SITE 03	NCHAN 1
NREC 47 LENGTH 3001	ID 98 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 89 SR 10	MOUTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 89 SR 10	МОМТН 6 НОЦР 19	04Y 25 MINUTE 1	YEAR 75 SEC 33	SITE B1	NCHAN 1
NRFC 47 LENGTH 3001	ID 89 SR 10		DAY 25 MINUTE 1	YEAR 75 SEC 33		NCHAN 1
NREC 47 LENGTH 3001	ID 89 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 89 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SFC 33	SITE 84	NCHAN 1
NPEC 47 LENGTH 3001	ID 89 SR 10	МОИТН 6 ЧОПР 19	DAY 25 MINUTE 1	YEAR 75 SFC 33	SITE	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	C 2	1
LENGTH	98	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	£3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	10	MONTH	DVA	YEAR	SITE	NCHAN
47	A9	6	25	75	C4	1
LENGTH	SR	HOUR				
3001	10	19	1	33		
NREC	וח	MONTH		YEAR	SITE	NCHAN
47	89	6	25	75	Ð 1	1
LENGTH	SR			SEC		
3001	10	19	1	33		
NREC	10	MONTH	DAY			NCHAN
47	89	6	25	75	02	1
LENGTH	SR	ноик		SEC		
3001	10	19	1	33		
NREC	Ιn	MONTH	DAY			
47	A 9	Ó	25	75	D3	1
LENGTH	SP	HOUR		SEC		
3001	10	19	1	33		
MREC	ID		0 4 4		SITE	
47	ρg	6	25	75 SFC	กน	1
LENGTH	SP	HOUR 19	MINUIF	37 L		
3001	10	19	1	22		
NREC	ID	HTMOM	UAY	YEAR	SITE	
47	90	6	23	75 SFC	A ()	1
LENGTH	S.P.	9 9	SS STUATE	3r C 47		
3001	10	4	~ <	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	() ۵	ь	23	75	P1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	9	55	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	b	23	75	a 5	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	55	47		
NAFC	ΙÚ	MONTH	DAY	YEAR	SITE	NCHAN
47	90	b	23	75	Ħζ	£ .
LENGTH	SP	HOUR	MINUTE	SFC 47		
3001	10	•	55	4 /		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	RU	1
LENGIH	SP	ноия	MINHTE	SEC		
3001	10	9	5.5	47		

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NREC 47 LENGTH 3001	ID 90 SP 10	MONTH 6 Hour 9	SS MINUTE S3 DAY	YEAR 75 SEC 47	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	IP 90 SR 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SEC 47	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	10 90 SR 10	MONTH 6 HOUR 9	DAY PAUNUTE 22	YEAR 75 SEC 47	SITE C3	NCHAN 1
MREC 47 LENGTH 3001	ID 90 SP 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SEC 47	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	IP 90 SR 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SEC 47	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID 90 SR 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SFC 47	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 00 SR 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SEC 47	SITE N3	NCHAN 1
MREC 47 LENGTH 3001	IP 00 SR 10	MONTH 6 HOUR 9	DAY 23 MINUTE 22	YEAR 75 SEC 47	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SR 10	MONTH 6 HOUR 4	DAY 22 Minutf 32	YEAR 75 SEC 58	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SR 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SP 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SFC 58	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	10 91 58 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE P3	NCHAN 1

NREC 47 LENGTH 3001	ID 91 SR 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SR 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE	NCHAN 1
NREC 47 LENGTH 3001	In 91 58 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	C2 SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SR 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	IP 91 SP 10	MONTH 6 HOUR 4	DAY 22 TUUTF 32	YEAR 75 SEC 58	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 91 SR 10	МПМТН 6 НОИР 4	DAY 22 THATM 32	YEAR 75 SEC 58	SITE	NCHAN 1
NREC 47 LENGTH 3001	IP 91 SP 10	MONTH 6 HOUR 4	DAY 22 MINUTE 32	YEAR 75 SEC 58	SITE	NEHAN I
NREC 47 LENGTH 3001	10 91 8P 10	MONTH 6 HOUR 4	DAY 22 MTNUTF 32	YEAR 75 SEC 58	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	10 91 10		55	YEAR 75 SFC 58		
NREC 47 LENGTH 3001	10 92 88 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SEC 20	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 92 10	MONTH 6 HOUR 16	30 S1 DAY	YEAR 75 SFC 20	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 92 10	MONTH 6 HOLR 16	DAY 21 MINUTE 30	YEAR 75 SFC 20	SITE SS	NCHAN 1

NREC 47 LENGTH 3001	ID 92 SR 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SFC 20	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	I O 92 SR 10	MONTH 6 HOUR 16	DAY 21 Minute 30	YEAR 75 SEC 20	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SR 10	MONTH 6 HOUR 16	DAY 21 Minute 30	YEAR 75 SFC 20	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SR 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SEC 20	SITE SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SP 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SFC 20	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SP 10	MONTH 6 HOUR 16	DAY 21 MTNUTE 30	YEAR 75 SEC 20	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	IP 92 SP 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SEC 20	SITE D1	NCHAN 1
NREC 47 LENGIH 3001	ID 02 SR 10	MONTH 6 HOUR 16	21	YEAR 75 SFC 20	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SR 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SEC 20	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 92 SP 10	MONTH 6 HOUR 16	DAY 21 MINUTE 30	YEAR 75 SEC 20	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 93 SR 10	MQNTH 6 HOUR 4	DAY 16 MINUTE 26	YEAR 75 SFC 31	SITE	NCHAN 1
NREC 47 LENGTH 3001	IN 03 SR 10	MONTH O HOUR 4	DAY 16 MINHTE 26	YEAR 75 SFC 31	SITE B1	NCHAN 1

NREC 47 LENGIH	ID 93 SR	MONTH 6 HOUR	DAY 16 Minute	YEAR 75 SEC	SITE B2	NCHAN 1
3001	10	4	26	31		
NREC 47	ID 93	MONTH 6	DAY 16	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	S.P. 1 U	H0UR 4	MINUTE 26	SEC 31		
NREC 47	10 93	MONTH 6	DAY 16	YEAR 75	SITE R4	NCHAN 1
LENGTH 3001	SP 10	HOUR 4	MINUTE 26	SFC 31		
NREC 47	ID 93	MONTH 6	DAY 16	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	H011R 4	MINUTE 26			
NREC 47	ID 93	MONTH 6	DAY 16	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	∺กบR 4	MINUTE 26	SFC 31		
NREC 47	ID 93	мпытн 6	DAY 16	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 26	SEC 31		
NREC 47	1D	MONTH	DAY 16	YE AR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	H01/R 4	MTNUTE 26	SEC 31		
NREC 47	ID 93	MONTH	D&Y	YEAR 75	SITE	NCHAN 1
LENGTH 3001	5R 10	HUUR 4		SFC 31	. •	
NREC 47	10 93	MONTH	DAY 16	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 26	SEC 31		
NREC 47	10	MONTH 6	DAY 16	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	5R 10	H011R 4	MINUTE 26	SEC 31		
NREC 47	1D	MONTH 6	DAY 16	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	ATNUTE 26	SEC 31	J .	•
MREC 47	In 94	MONTH	DAY 15	YEAR 75	SITE	NCHAN 1
LENGTH 3001	5P 10	HOUR 14	MINUTE	SEC 33		•

	NREC	ID	_	• .	YEAR		NCHAN
	47	94	6	15	75	81	1
L	.ENGTH			MINUTE			
	3001	10	14	9	33		
	MREC	ID	MONTH	-		SITE	
	47	94	6	15	75	82	1
Ĺ	.ENGTH	SR	HOUR	MINUTE			
	3001	10	14	9	33		
	NREC	ID		DAY			
	47	04	6	15 MINUTE	75	B3	1
L	ENGTH	SR	HOUR	MINUIF			
	3001	10	14	9	33		
	NREC			DAY			
	47	94	b	15 MINUTE	75 SEC	B4	1
Ļ	.ENGTH	SR	14	जाकाम <u>ह</u> 9			
	3001	10	14	4	33		
	NREC		MONTH		YEAR		NCHAN
	47 SNCTH	94	6	15 MINUTE	75 SEC	C 1	1
L	ENGTH 3001	10	14	Ø 341461E	33		
	3001	10	14	•	33		
	NREC	ΙD			YEAR	SITE	
	47	94	6	15	75	C 5	1
				MINUTE			
	3001	10	14	9	33		
	NREC	ΙÙ				SITE	
	47	94	6	15	75 252	С 3	1
Ļ				MINUTE			
	3001	10	1 4	9	33		
	NREC	ID	MONTH	DAY			
	47	94	0	15	75	C 4	1
L				MINUTE			
	3001	10	14	9	33		
	NREC	ΙĐ	MONTH	DAY	YEAR	SITE	NCHAN
	47	94	6	15	75	D1	i
L	.ENGTH	SP	HOUR	MINUTE	SEC		
	3001	10	14	9	33		
	NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
	47	94	6	15	75	5.0	1
L	ENGTH	SP	HOUR	MINUTE	SEC		
	3001	1 0	1 4	4	33		
	NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
	47	94	6	15	75	D 3	i
L	ENGTH	SR	HOUR	MINHIE	SEC		
	3001	1 0	14	9	33		
	NRFC	ΙD	MONTH	GAY	YEAR	SITE	NCHAN
	47	94	6	15	75	D4	1
L	ENGTH.	SP	HOUR	MINUTE	SEC		
	3001	10	14	9	33		

NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 Hour 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	IN 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SP 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	I D 95 Sp 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	C5 SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SP 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SFC 39	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	I D 95 SR 10	MONTH 6 HOUR 5	DAY 14 MINUTE 37	YEAR 75 SFC 39	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 95 SR 10	момтн 6 1104 5	DAY 14 MINUTE 37	YEAR 75 SEC 39	SITE D3	NCHAN 1

NREC 47	ID 95	MONTH 6	DAY 14	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 5	MINUTE 37	SEC 39		
NREC	11	MONTH	DAY	YEAR 75	SITE	NCHAN 1
47 LENGTH	96 S¤	6 HOUR		SFC	20	•
3001	10	6	. 34	32		
NREC	ID	MONTH	=	YEAR	SITE Bi	NCHAN 1
47 LENGIH	96 SR	6 HOUR	10 MINUTE	75 SFC	6.1	
3001	10	6	34	32		
MREC	ID	MONTH	DAY		SITE	
47 LENGTH	96 SR	6 HOUR	10 MINUTE	75 SFC	H.5	1
3001	10	6	34	32		
NREC	10	MONTH	DAY		SITE	NCHAN
47 LENGTH	9 6 S P	6 HQUR	10 MINUTE	75 SFC	83	1
3001	10	6	34	32		
NREC	ΙD	МОМТН	DAY	YEAR	SITE	NCHAN
47	96	6	10 MINUTE	75 SFC	84	1
LENGTH 3001	SR 10	H0UR 6	34	32		
NREC	to	MONTH	ĐΛY	YEAR	SITE	
47 Length	96 Sp	40UR	10 MINUTE	75 SEC	C 1	i
3001	10	6	34	32		
NREC	10	MONTH	DAY	YEAR	SITE	
47 LENGTH .	96 SP	6 H0UR	10 MINUTE	75 SFC	C 5	i
3001	10	6	34	32		•
NREC			DAY			
47 LENGTH	96 SR	6 HOUR	10 MINUTE	75 SEC	C 3	1
3001	10	0	34	32		
NREC	ID	MONTH	() A Y	YEAR	SITE	
47 LENGTH	96 SR	6 ноџа	10 MINUTE	75 SEC	C 4	1
3001	10	ь	34	32		
NREC	10	MUNTH	DAY	YEAR	SITE	
47 LENGTH	96 SR	6 HOUR	10 MINUTE	75 SEC	D1	1
3001	10	6	34	32		
NREC	10	MONTH	DAY	YEAR	SITE	
47 LENGTH	9 p S P	6 ндик	10 MINUTE	75 SEC	0.5	1
3001	1.0	5	34	32		

NREC 47 LENGTH	ID 96 SR	MONTH 6 HOUR	DAY 10 MINUTE	YEAR 75 Sec	SITE 03	NCHAN 1
3001 NREC 47 LENGTH	10 In 96 SR	6 MONTH 6 HOUR	34 DAY 10 MINUTE	32 YEAR 75 SEC	SITE D4	NCHAN 1
3001 NREC 47	10 In 79	6 МВИТН 6	74 DAY 10	32 YEAR 75	SITE	NCHAN 1
LENGTH 3001 NREC	SR tu In	HOUP 8 MONTH	MINUTE 53 DAY	SEC 17 YEAR	SITE	NCHAN
47 LENGTH 3001	79 SP 10	6 HOUR 8	10 MINUTE 53	75 SFC 17	81	1
NREC 47 LENGTH 3001	In 79 Sp 10	MONTH 6 HOUR 8	DAY 10 MINITE 53	YEAR 75 SFC 17	SITE S8	NCHAN 1
NREC 47 LENGTH 3001	ID 79 SR 10	MONTH 6 HOUR 8	DAY 10 MINUTE 53	YEAR 75 SEC 17	SITE	NCHAN 1
NREC 47 LENGTH 3001	I D 79 SR 10	HTMOM 6 9000 8	DAY 10 MINUTE 53	YEAR 75 SEC 17	SITE 84	NCHAN 1
NREC 47 LENGTH	IN 79 SR	MONTH 6 Hour	DAY 10 MINUTE 53	YEAR 75 SEC	SITE	NCHAN 1
3001 NREC 47 LENGTH	79 SP	MONTH 6 HOUR	DAY 10 MINUTE	YEAR 75 SFC	CS SILE	NCHAN 1
3001 NHEC 47 LENGTH	10 10 79 SP	B MONTH 6 HOUR	53 DAY 10 MINUTE	YEAR 75 SEC	SITE C3	NCHAN 1
3001 NRFC 47 LENGTH	10 10 79 SP	8 MONTH 6 HOUR	53 () 4 Y 10 MINUTE	17 YEAR 75 SFC	SITE C4	NCHAN 1
3001 NREC 47	10 10	8 M0N1H 6	5 5 D A Y 1 0	17 YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	3P 10	9:10∺ 8	MINHTE 53	3FC 17		

			5.4.4	W. A.O.	0175	
NREC 47	IN 79	MONTH	DAY 10	YE AR 75	SITE D2	NCHAN 1
LENGTH	SR	ноия	MINUTE	SFC	02	•
3001	10	8	53	17		
NREC	ΙÜ	MUNTH	DAY	YEAR	SITE	NCHVN
47 LENGTH	79 SP	6 HOUR	10 MINUTE	75 SFC	D3	1
3001	10	8 B	53	17		
, , , , , , , , , , , , , , , , , , , 		.,		• •		
NREC	ΙÜ	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	D4	1
LENGTH	SR	HOUS	MINUTE	SFC		
3001	10	ರ	53	1 7		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	9.8	6	9	75	AO	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	1 0	i	51	55		
NDEC	10	MOSITH	DAV	YEAR	SITE	NCHAN
NREC 47	ая ID	MUNTH	Q	75	91 B1	NCHAN
LENGTH	SP	ноик	MINUTE	SEC		•
3001	10	1	51	25		
NREC	ID	MONTH	DAY	YFAR	SITE	
47 LENGTH	98	н0пК ф	9 MINUTE	75 SFC	8.5	1
3001	3P 10	1	51	25		
3001			•			
NREC	ΙP	HTMON	DAY	YEAR	SITE	NCHAN
47	QA	6	Q	75	B 3	1
LENGTH	SR	нопъ	MINUTE	SEC		
3001	1 0	1	51	55		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	84	1
LENGTH	SO	HOUR	MINUTE	SEC		
3001	1.0	1	51	55		
MOEC	ID	MONTH	N & V	VEAD	SITE	NCHAN
MREC 47	ID 98	6	9 D A Y	YEAR 75		NCHAN 1
LENGTH	SR	HOUR		SFC		•
3001	10	1	51	2.2		
NREC	IU	MONTH	DAY	YEAR	SITE	
47 LENGTH	98 SR	6 HOUR	9 MTNUTE	75 SFC	0.5	1
3001	10	1	51	55		
, , , , ,		•	•			
MRFC	1 D	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	C 3	1
LENGTH	SR	нопн	MINUTE	SFC		
3001	10	1	51	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	9.8	6	g	75	C 4	1
LENGTH	SR	ячан	MINUTE	SEC		
3001	10	1	51	5.5		

NREC 47 LENGTH 3001	IO 98 SR 10	MONTH 6 HOUR 1	DAY 9 MINUTE 51	YEAR 75 SFC 22	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 98 SP 10	MONTH 6 HOUR 1	DAY 9 MINUTE 51	YEAR 75 SFC 22	SITE	NCHAN 1
NREC 47 LENGTH 3001	98	MONTH 6 HOUR 1	DAY 9 Minute 51	YEAR 75 SEC 22	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	98	6	DAY 9 MINUTE 51	7 5	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 99 3P 10	6	DAY 9 MINUTE 29	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 99 SR 10	6	S4 MINULE 6 DAA	YEAR 75 SFC 43	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 99 SR 10	b	SA WINNIE A DVA	75	SITÉ B2	NCHAN 1
NREC 47 LENGTH 3001	ID 99 SR 10	50 HUNH WUNTH	DAY 9 MINUIF 29		SITE R3	NCHAN 1
NREC 47 LENGTH 3001	ID 99 SR 10	HTM0M 6 RUOH 05	MINUTE 9 DAY			NCHAN 1
NREC 47 LENGTH 3001	IN 99 5P 10	MONTH 6 HOUR 05	MINNIE O DAA	YEAR 75 SEC 43	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 99 58 10	MONTH 6 RUUH VS	DAY 9 MINUTE 29	YEAR 75 SEC 43	CS SITE	NCHAN 1
NRFC 47 LENGTH 3001	10 99 SP 10	HTMNM 6 9:10H 05	DAY 9 MTNUTF 29	YEAR 75 SFC 43	SITE C3	NCHAN 1

NREC 47	ID 99 SR	MONTH 6 HOUR	DAY 9 MINUTE	YEAR 75 SEC	SITE C4	NCHAN 1
LENGTH 3001	10	50 LOOK	59	43		
NREC 47	99 10	MONTH 6	9 D A Y	75	SITE D1	NCHAN 1
LENGTH 3001	SR 10	HOUR 20	MINUTE 29	SFC 43		
NREC 47	1D 99	MONTH 6	DAY 9	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SEC 43		
NREC 47	ID 99	MONTH	PAQ P	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SR 10		MINUTE 29	SEC 43		
NREC 47	00 10	MONTH 6	0 4 Y	YEAR 75	SITE N4	NCHAN 1
LENGTH 3001	SP 10	HUU:R 20	MINUTE 29	SEC 43		
NREC 47	ID 100	MONTH 6	DAY	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8		
NREC 47	1D 100	MONTH 6	DAY	YEAR 75	SITE Bl	NCHAN 1
LENGTH 3001	SR 10	HOUR 22	MINUTE 13	SEC 8		
NKEC 47	ID 100	MONTH 6	D 4 Y	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SP 10	H011R	MTNUTE 13	SEC 8		
NREC 47	ID 100	MONTH	Ð A Y	YEAR 75	SITE P3	
LENGTH 3001	5P		MIDUTE 13	SFC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE 84	NCHAN 1
LENGTH 3001	SP 10	HOUR SS	MINUTE 13	SFC 8		
NREC 47	ID 100	МОЙТН 6	D 4 Y	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8	~ •	-
NREC 47	ID 100	MUNTH 6	D	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	H008 22		SFC 8	~ =	-

NREC	ID	MONTH	DAY	YEAR	SITE	-
47 LENGTH	100 SR	6 HOUR	9 MINUTE	75 SEC	C 3	1
3001	10	55	13	3E C 8		
	• •		, ,			
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	55	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	55	13	8		
NREC	10	момтн	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	05	NCHAN
LENGTH	SR	HOUR	MINUTE	SFC	., _	•
3001	10	55	13	8		
NREC 47	ID	нтирм	DAY	YEAR	SITE	
LENGTH	100 SP	HOUR	9 MINUTE	75 SEC	D3	1
3001	10	25	13	3EC 8		
	, ,			•		
NREC	Iu	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D 4	1
LENGTH	SA	HOUR	MINUTE	SEC		
3001	10	5.5	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	ΑU	1
LENGTH	Sp	HOUR	MINUTE	SEC		
3001	10	5	10	34		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	Bi	1
LENGTH	SR	HOUR	MINUTE	SFC	·	•
3001	10	5	10	34		
NOEC	7.0	MONTH	DAY	YC AO	0175	A. C A.
NREC 47	101	MONTH 6	0 A Y	YEAR 75	2116	NCHAN 1
LENGTH	SR	HOUR	MINUTE	SEC	116	
3001	10	5	10	34		
				_		
NRFC	10	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	101 Sp	HOUR	8 MINUTE	75 SFC	B3	1
3001	10	5	10	34		
2	•	·	• •	•		
NREC	ΙÙ	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	B4	1
LENGTH 3001	S₽ 10	HUUR 5	MINUTE 10	SFC		
3001	10	フ	10	34		
NPEC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	Ci	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	5	10	34		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C 2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	10	34		
NOSS	7.0	MONTH	0.4.4	VCAD	6175	. NICHAN
NREC 47	IO 101	MONTH 6	DAY 8	YEAR 75	S11E	NCHAN
LENGTH	SR	HOUR	MINUTE	SEC	C 3	1
3001	10	5	10	34		
		_		_		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C 4	1
LENGTH	SR	HOUR		SEL 34		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	D1	1
LENGTH	SR	HOUR				
3001	10	5	10	34		
NREC	10	MONTH	UAY	YEAR	SITE	NCHAN
47	101	6	8	75	05	1
LENGTH	SR			SFC	1.2	•
3001	10	5	10	34		
NREC	ΙĐ		DAY		SITE	
47	101	6	8	75	03	i
LENGTH 3001	SR 10	HOUR 5	MINUTE 10	SEC 34		
3001	1 0	,	10	24		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	0.4	1
LENGTH	SR	HOUR		SEC		
3001	10	5	10	34		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	102	ь	В	75	40	1
LENGTH	SR	HOUR	MINUTE	SEC	_	-
3001	10	18	44	55		
NREC			DAY			
47 LENGTH	102 SR	6 НОИ Р	8 MINUTE	75 SEC	B1	1
3001	10	18	44	55		
		•				
NREC	ID	HTNOM	DAY	YEAR	SITE	NCHAN
47	105	6	8	75	82	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	8	75	83	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1.8	44	55		
NDCC	10	MONTH		VEAR	CITC	NAME AND A RES
NREC 47	105 105	MONTH	D 4 Y 8	YEAR 75	SITE 84	NCHAN 1
LENGTH	SR	HOUR	MINUTE	SEC	(1 4	
3001	10	18	44	55		

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6 HOUR		75	Ci	1
LENGTH	SR					
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	C 2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	18	44	55		
NREC	ţD	MONTH	DAY	YEAR	SITE	NCHAN
47	102		8 MINUTE	75	C 3	1
LFNGTH	SR		MINUTE	SEC		
3001	10	18	44	55		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	102	0	۵	75	C 4	1
LENGTH	SR			SFC		
3001	10	18	44	55		
NREC	IO	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	D 1	1
LENGTH			MINUTE			
3001	1 0	18	44	55		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	102	Ó	В	75	0.2	1
LENGTH			MINUTE			
3001	1 0	1.5	44	55		
NREC	ΙĐ		DAY	YEAR	SITE	NCHAN
47	105	ь	8	75	D 3	1
LENGTH			MINUTE			
3001	10	18	44	55		
NREC	10	моитн	DΔY	YEAR	SITE	NCHAN
47	105	6	8	75	D 4	1
LENGTH		ноия	MINUTE			
3001	10	1.8	47.	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	. 40	1
LENGTH	ŞR	HOUR	MINUTE	SFC		
3001	10	6	9	50		
NREC	, ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	81	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	9	50		
NRFC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	82	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	6	9	50		
NRFC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	9	50		

NREC 47 LENGTH 3001	103	MONTH 6 HOUR 6	7	75	SITE 84	NCHAN 1
NREC 47 LENGTH 3001		MANTH 6 HOUR 6	DAY 7 MINUTE 9		SITE C1	NCHAN 1
	103	MONTH 6 HOUR 6	DAY 7 MINUTE 9	YEAR 75 SEC 50	SITE C2	
	103	MONTH 6 HOUR 6	DAY 7 minute 9	YEAR 75 SEC 50	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 103 SR 10	6	DAY 7 MINUTE 9	15	SITE C4	NCHAN 1
NREC 47 LENGTH 3001		MONTH 6 HOUR 6	DAY 7 MINUTE 9	YEAR 75 SEC 50	SITE D1	NCHAN 1
NREC 47 LENGTH - 3001		HTMOM 6 RUGH 6	DAY 7 MINUIE 9	75	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ΙD	MONTH 6 HOUR 6	DAY 7 MINUTE 9		SITE D4	NCHAN 1
NREC	ID	MONTH 6	DAY 7 MINUTE 39	YEAR	SITE	
NREC 47 LENGTH 3001	ID 104 SR 10	MONTH 6 HOUR 17	DAY 7 MINUTE 39	YEAR 75 SEC 26	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 104 SR 10	MONTH 6 HOUR 17	DAY 7 MINUTE 39	YEAR 75 SFC 26	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	ID 104 SR 10	MONTH 6 HOUR 17	DAY 7 MINUTE 39	YEAR 75 SEC 26	SITE B3	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	P 4	1
LENGTH	SR	HOUR		SEC		
3001	10	17	39	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	. 75	C 1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1 7	39	50		
NREC	ID	HTMNM	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C 2	1
LENGTH	SR	HOUR		SEC		
3001	10	17	39	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C 3	1
LENGTH	SP	HOUR				
3001	10	17	39	56		
NREC	ID	MONTH	DAY	YEAR		NCHAN
47	104	6	7	75	C4	1
LENGTH	SR	HOUR		SEC		
3001	10	17	39	56		
NREC		MONTH		YEAR		NCHAN
47	104	6	7	75	Ú1	1
LENGTH	SP		MINUTE	SEC		
3001	10	17	39	26		
NREC	ID		DAY		SITE	
47	104	6	7	75	LΣ	1
LENGTH	SR	HOUR		SEC		
3001	10	1 7	39	26		
NREC	IU		DAY	YEAR	SITE	
47	104	6	7	75	03	1
LENGTH	SR	HOUR		SEC		
3001	10	17	39	56		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	104	6	7	75 SFC	D4	1
LENGTH	SP 10	HOUR	MINUTE 39	26 26		
3001	10	1 '	27	20		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	105	6 HOUR	7 MINHTE	75 SFC	ΔU	1
LENGTH 3001	SR 10	17	47	28		
			D 4 V	VCAD	0175	NCHAN
NREC	ID	MONTH	DAY 7	YEAR 75	SITE Pi	NCHAN 1
47 LENGTH	1.05 SR	HUUR HUUR	MINUTE	SEC	r.i	1
3001	10	17	47	28		
7001						
NREC	IU	MONTH	DAY	YEAR	SITE	_
47	105	b	7	75 0 5 0	82	1
LENGTH	SP	HOUR		SFC		
3001	10	17	47	28		

NREC	ID	HTNOM	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	B3	1
LENGTH			MINUTE			
3001	10	17	47	28		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	105	* E	7	75	84	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	58		
NREC	In	HTNOM	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C 1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	17	47	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C 2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1 7	47	85		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	С 3	1
LENGIH	SP	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C 4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	17	47	58		
NREC		MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	D 1	1
LENGTH	SR			SEC		
3001	10	17	47	28		
NREC	10	HTMOM	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	50	1
LENGTH		HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	момтн	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	03	1
LENGTH	SR	HOUR	MINUTE	SEC		-
3001	10	17	47	85		
NREC	01	MONTH	DAY	AR	SITE	NCHAN
47	105	6		75	D4	1
LENGTH	SR	HOUR	MIN:	Ç		-
3001	10	17	-1 ,	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	A 0	1
LENGTH	SR	HOUR	MINUTE	SEC	-	-
3001	10	1 1	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	P1	1
LENGTH	SR	HOUR	MINUTE	SEC	•	-
3001	10	1 1	1	40		
			-	•		

NREC 47	ID 106		DAY 6 MINUTE		SITE B2	
LENGTH 3001	\$ P 10	HOUR †1	MINUTE 1	SEC 40		
NREC 47	106		DAY 6 MTNUTE		SITE R3	
LENGTH 3001	SR 10	HOUR 11	MTNUTE 1	SFC 40		
NREC 47	ID 106	MONTH 6	DAY 6 Minute	YEAR 75	SITE B4	-
LENGTH 3001	SP 10		MINUTE 1	SEC 40		
NREC 47	ID 106	MONTH	DAY 6	YEAR 75	SITE C1	
LENGTH 3001	SR 10	HOUR 11	6 MINUTE 1	SEC 40		
NREC 47	ID 106	MONTH 6	DAY 6	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR		MINUTE 1	SEC		
NREC 47	ID 106	MONTH 6	DAY 6	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SP 10	HOUR 11	MINUTE 1			_
NREC 47	ID 106	MONTH 6	DAY 6	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001			MINHTE 1	SEC 40		
NREC 47	In 106	MUNTH 6	DAY	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	HOUR 11	MINUTE 1			-
NREC 47	ID 106	мпитн	D A Y	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 11	MINUTE 1	SFC 40		
NREC 47	ID 106	момтн о	DAY 6	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	HOUR 11	MINUTE 1	SFC 40		·
NREC 47	ID 106	MONTH	DAY	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	5P	ноия 11	MINUTE 11	SEC 40	1. 4	•
NREC 47	I D 1 O 7	MUNTH	DAY 4	YEAR 75	SITE	NCHAN
LENGTH	SP	HUĮ±R	MINUTE	SFC	40	1
3001	10	2	36	5(6		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	82	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC		MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	83	1
LENGTH	SP		MINUTE	SFC		
3001	10	5	36	6		
NREC	10		DAY	YEAR	SITE	NCHAN
47	107	6	4	75	R4	1
LENGTH			MINUTE	SEC		
3001	1 0	2	36	6		
NREC		MONTH	DAY	YEAR	SITE	
47	107	6	4	75	C1	1
LENGTH	SP		MINUTE			
3001	10	5	36	6		
NPEC	ΙÜ		DAY		SITE	NCHAN
47	107	6	4	75	c 5	1
LENGIH	SR	HOUR	4 MINUTE	SEC		
3001	10	2	36	6		
NREC	ID 107 SR	MONTH	DAY		SITE	
47	107	6	4	75	C 3	1
LENGTH			MINUTE			
3001	10	5	36	6		
NREC	10	MONTH	DAY		SITE	NCHAN
47	107	6	4	75	C 4	1
	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC			DAY			
	107		4		D 1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	36	6		
NREC	ID	нтипм	DAY	YEAR	SITE	NCHAN
47	107	0	4	75	0.5	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	36	6		
NREC	ID_	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	2	36	6		
NREC	10	момтн	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	1 0	2	36	6		

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	A 0	1
LENGTH	SP	HOUR				
3001	1 0	3	6	6		
NREC		HTMOM	ÐAY	YEAR	SITE	
47	108	6	4	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	108	6	4	75	82	1
LENGTH	SR	HOUR	MINUTE			
3001	10	3	6	6		
NRFC	ID	MONTH	DΔY	YEAR	SITE	
47	108	6	4	75	83	1
LENGTH	SP 10	HOUR				
3001	10	3	6	6		
NREC	10	MONTH	DAY	YEAR	SITE	
47	108	6	4	75	B4	1
LENGTH	SR	HOUR	MINUTE			
3001	10	3	6	0		
NREC	Ιυ	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	C 1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	6	6		
NREC		MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	c 5	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	1 0	3	6	ь		
NREC	ΙD	HTNOM	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	С 3	1
LENGTH	SR		MINUTE	SEC		
3001	10	3	6	6		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	198	6	4	75	C 4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	6	6		
NREC	TD.	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	D 1	1
LENGTH	SP	HOUR	MINHIF	SEC		
3001	1 0	3	6	6		
MREC	Ιņ	моитн	DAY	YEAR	SITE	NCHAN
47	108	ь	4	75	0.5	1
LENGTH	SP	HOUR	STRUTE	SFC		
3001	10	3	6	6		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	0.3	1
LENGTH	SP	HOUR	MINHTE	SFC		
3001	1.0	3	6	6		

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	0.4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	1 0	3	6	6		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	Δ0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	3	7	43		
NREC	10	MONTH	DAY		SITE	
47	109	6	4	75	81	1
LENGTH 3001	SP 10	HOUR 3	MINUTE 7	SEC 43		
3001	, 0	,	,	43		
NREC	10	MONTH		YEAR	SITE	
47	109	6 HQUR	4	75	82	1
LENGTH 3001	SR 10	HUUR 3	MINUTE 7	SEC 43		
3001	1 0	J		4.3		
NREC	ΙÙ	MONTH	DAY	YEAR	SITE	· -
47	109	6 HOUR	4	75	83	1
LENGTH 3001	S₽ 10	HUUR 3	MINUTE 7	SFC 43		
,,001	1.0	,	,	43		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	109 SR	HOUR	4	75 SEC	84	1
LENGTH 3001	10	700R	MINUTE 7	43		
3001		J	,	43		
NREC	ID	MONTH	DAY	YEAR	SITE	· ·
47 LENGTH	109 Sp	HOUR	4 MINUTE	75 SFC	C 1	1
3001	10	701. K	7	43		
				_		
NREC	Iν	HTNOW		YEAR	SITE	
47	109	HOUD	4	75 050	C 5	1
LENGTH 3001	SR 10	#0UR 3	MINUTE 7	3EC 43		
3001						
NREC		MONTH	DAY		SITE	
47	109	ь	4	75	C3	1
LENGTH 3001	SP 10	HOUR 3	MINUTE 7	SEC 43		
3001	10	3	,	43		
NREC	ΙD	HTMOM	DVA	YEAR	SITE	NCHAN
47	109	6	4	75	C 4	1
LENGTH 3001	SR 10	HOUR 3	MINUTE 7	SFC 43		
	10		•	٠,		
MREC	ID	HTMOM	DVA	YEAR	SITE	NCHAN
47 LENGTH	1 0 9 S R	H000	4 MINUTE	75 8 F.C	D1	1
3001	10	₩0UR 3	7	SFC 43		
NREC	ΙĎ	MUNIH	DAY	YEAR	SITE	NCHAN
47 LENGTH	9 P 9 P	40UB	4	75 850	0.5	1
3001	10	₩QUR 3	MINUTE 7	SEC 43		
J J 17 €	1.0	,	,	~ ,		

		,				
NREC	Ιn	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	03	1
LENGTH	SP	HOUR	MINUTE	SFC		-
3001	10	3	7	43		
	. •	_		, •		
NREC	ID	молтн	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	Đ4	1
LENGTH	SP	HOUR	MINUTE	SFC		-
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	AO	1
LENGTH	SP	ноин	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	ь	3	75	B1	1
LENGTH	SP	чогъ	MINUTE	SEC		
3001	10	3	35	39		
NAFC	Ιn	HINDM	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	8 S	t
LENGTH	SF	HOUR	MINHIE	SFC		
3001	10	3	35	39		
NREC	10	MONTH	DAY	YE AR	SITE	NCHAN
47	110	6	3	75	P.3	1
LENGTH	Sts	HOUR.	ALMNIE	SEC		
3001	10	3	35	39		
NREC	ΙD	MONTH		YEAR	SITE	
47	110	5	3	75	B 4	1
LENGTH	SP	яцон	MINUTE	SEC		
3001	10	3	35	19		
4.050			24	45.40		
NREC	10	MONTH	DΔY	YEAR	SITE	
47	110	6	3	75	C 1	1
LENGTH	SR	HOUR	MINUTE	3FC		
3001	10	3	35	39		
NOCC	T.O.	MONTH	0.4.4	VEAD	0175	A : C A A
NREC 47	ID 110	MONTH	D 4 Y	YEAR 75	SITE	NCHAN
LENGTH	SR	ь HOUR	MINUTE	SEC	C.S.	1
3001	10	3	35	360		
3001	10	ر	, ,	37		
MREC	וח	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	C3	1
LENGTH	SP	нобе	MINUTE	SFC	C J	•
1001	10	3	35	39		
	•	•	., •	•		
* 4. \$	īι	MOI, TH	DAY	YEAR	SITE	NCHAN
	i •	. 6	3	75	C 4	1
,	· =	pri () 1 mg	MENUTE	SEC	- , ·	•
		į	15	39		
				•		
		. • •	. 5 r	4 F 7 H	SITE	NCHAN
			ζ.	75	0.1	1
			45 to 15 E	ن ء :		-
			• •	₹ 5		

NREC

ID MONTH DAY YEAR SITE NCHAN 75 D2 SEC 39 NCHAN

110 6 SR HOUR MINUTE 47 LENGTH SR 3001 ID 110 HOUR NRFC ID MONTH DAY YEAR SITE 3 75 MINUTE SEC 1 47 75 D3 LENGTH SR 35 39 3001 ID 110 HOUR 3 NREC MONTH DAY YEAR SITE NCHAN 47 3 75 04 1 LENGTH SR MINUTE SEC 10 3001 3 35 39 DAY YEAR
2 75
MINUTE SEC
29 49 ID 111 SR HOUR 3 ID NREC NCHAN SITE 47 40 1 LENGTH SR MINUTE 3001 29 49 DAY YEAR NREC MONTH ID SITE NCHAN HOUR 3 2 75 81 47 111 LENGTH SP MINUTE SFÇ 3001 10 3 29 49 YEAR 75 SEC MONTH MREC ΙD In 111 10 HOUR 3 DAY SITE NCHAN 47 5 8.2 1 LENGTH SR MINUTE 59 3001 3 DAY YEAR NREC ID MONTH SITE NCHAN HOUR 3 83 111 2 75 47 75 SFC LENGTH SR MINUTE 3001 10 3 29 49 DAY YEAR SITE NCHAN 10 111 22 HOUR 3 MONTH NRFC ΙD B4 47 2 75 1 75 SFC LENGTH MINUTE 59 3001 ID. MONTH DAY YEAR SITE NCHAN MPEC HOUR 3 47 111 2 75 C 1 1 75 SEC LENGTH SR MINUTE 29 49 3001 10 3 SITE NCHAN ID MONTH DAY YEAR MREC TU 111 P HOUR 3 47 75 0.2 2 MINUTE LENGTH SEC 29 3001 49 10 DAY YEAR MONTH 111 111 100 HUUR 3 SITE NCHAN NREC 47 75 C 3 2 75 SEC LENGTH SP MINUTE 29 3001 49 DAY YEAR SITE NCHAN MONTH NREC ΙD 111 6 C 4 2 75 SEC 75 47 LENGTH MINUTE SP HOUR 29 10 3 49 3001

NREC		MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	5	75	D1	1
LENGTH	3R	HOUR		SEC		
3001	10	3	59	49		
NKEC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	5	75	DS	1
LENGTH	SR	HOUR	MINUTE			
3001	10	3	29	49		
MREC	10	MONTH		YEAR	SITE	
47	111	6	5	75	D3	1
LENGTH		HOUR				
3001	10	3	29	49		
NREC		моитн		YEAR		
47	111	6	5	75	D4	1
LENGTH	SR			5 F C		
3001	10	3	29	49		
NREC	ΙĐ		DAY			NCHAN
47	112	5	31	75	٥۵	1
LENGTH	SP		MINITE			
3001	10	14	26	47		
MREC	טו		DVA		-	
47	115	5	31	75	Αĺ	1
LENGTH	SP	-	MINHTE	SFC		
3001	1 U	1.4	?b	47		
NHEC	10		DVA			
47	112	5	31 MTNUTF	75	82	ı
LENGIH 3001	5₽ 10	1014	SP.	SEC 47		
2001	10	, 4	ć 0	41		
NREC	_	MONTH		YEAR		NCHAN
4.7	112	5	31	75	83	1
LENGIH	SP	нот-к	MINUTE	SFC		
3001	1 υ	14	56	47		
NREC	Iι	MANTH	DAY	YEAR		NCHAN
47	112	5	31	75	64	1
LENGTH	3 P	HOUR	MINUTE	SEL		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
<i>u</i> 7	112	5	31	75	C 1	1
LENGTH	Sp	HOLK	MINUTE	SEC		
3001	10	14	26	47		
NREC	10	MONTH	DAY	YEAR	SITE	
47	112	5	31	75	0.2	i
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	14	26	47		
NRFL	ΙÞ	MONTH	ÐAY	YEAH	SITE	NCHAN
47	112	5	31	75	C 3	1
LENGTH	5 P	HOUR	MINUTE	SFC		
3001	10	14	26	47		

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NREC 47 Length 3001	112 SR	5 HOUR	DAY 31 MINUTE 26	75 SEC		NCHAN 1
47	112	5 HQUR	DAY 31 MINUTE 26	75	SITE D1	
NREC 47 LENGTH 3001	112	5	SP MINULE 31 DWA	75	SITE D2	
NREC 47 LENGTH 3001	ID 112 SR 10	MONTH 5 HOUR 14	DAY 31 MINUTE 26	YEAR 75 SEC 47	SITE D3	
NREC 47 LENGTH 3001	ID 112 SP 10	HOUR	DAY 31 MINUTE 26	SFC	SITE D4	NCHAN 1
NREC 47 LFNGTH 3001	SP	MONTH 5 HOUR 0	DAY 30 Minute 58	SEC	SITE	NCHAN 1
NREC 47 LENGTH 3001	SP	HOUR	DAY 30 MINUTE 58	SFC	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	113 SR	5 HOUR	DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE 82	NCHAN 1
NREC 47 LENGTH 3001			DAY 30 MINUTE 58			NCHAN 1
NREC 47 LENGTH 3001	ID 113 SR 10	MONTH 5 HOUR 0	DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 113 SP 10	MONTH 5 HOUR 0	DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 113 SR 10	MONTH 5 HOUR 0	DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE	NCHAN 1

NREC 47 Length 3001	10 113 SR 10		DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE C3	NCHAN 1
NREC 47 Length 3001	113	MONTH 5 HUUR 0	DAY 30 Minute 58	75	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	113	5	DAY 30 MINUTE 58	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	113	5	DAY 30 MINUTE 58	YEAR 75 SFC 33	DS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 113 SR 10	5	DAY 30 Minute 58	YEAR 75 SEC 33	SITE D3	
NREC 47 LENGTH 3001	17 113 58 10	MONTH 5 HOUR 0	DAY 30 MINUTE 58	YEAR 75 SEC 33	SITE D4	NCHAN 1
NREC 47 LENGIH 3001	ID 114 5P 10	MONTH 5 Harr 52	DAY 26 Minhite 21	YEAR 75 SEC 43	SITE	NCHAN 1
NREC 47 LENGIH 3001		5	DAY 26 MINUTE 27	YEAR 75 SEC 43	SITE R1	NCHAN 1
			DAY 26 Miniif 21			NCHAN 1
NREC 47 LFNGTH 3001	ID 114 SP 10	MONTH 5 HOUR 22	DAY 26 MINUTF 21	YEAR 75 SEC 43	SITE P3	NCHAN 1
NREC 47 LENGTH 3001	IN 114 38 10	41004 4004 25	DAY 25 MINUTE 21	YEAR 75 SFC 43	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	10 114 38 10	HT//OM 5 35 55	DAY 26 MINUTE 21	YEAR 75 SFC 43	SITE	NCHAN 1

NREC 47 LENGTH 3001	IO 114 SR 10	MONTH 5 HOUR 22	DAY 26 MINUTE 21	YEAR 75 SEC 43	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 114 SR 10	MONTH 5 Hour 22	DAY 26 MINUTE 21	YEAR 75 SEC 43	SITE C3	
NREC 47 LENGTH 3001	114	MONTH 5 HOUR 22	24	YEAR 75 SEC 43	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 114 SR 10	НТИОМ 2 ЯЏОН 25	DAY 26 41NUTE 21	YEAR 75 SEC 43	SITE D1	NEHAN 1
NREC 47 LENGTH 3001		5 HOUR	DAY 26 MINUTE 21	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 114 5P 10	MONTH 5 RUUH 22	DAY 26 MINHTE 21	75	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 114 SR 10	MONTH 5 HOUR 22	DAY 26 MINUTE 21	75	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	115	5	DAY 21 MINUTE 15	YEAR 75 SEC 36	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 115 SR 10	MNNTH 5 HOUR 14	DAY 21 MINUTE 15	YEAR 75 SEC 36	SITE B1	HCHAN 1
NREC 47 LENGTH 3001	IO 115 5P 10	MONTH 5 HOUR 14	DAY 21 MINUTE 15	YEAR 75 SEC 36	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	10 115 SR 10	МОМТН 5 НОПР 14	DAY 21 MINHTE 15	YEAR 75 SEC 36	\$17E 83	NCHAN 1
NREC 47 LENGTH 3001	ID 115 SR 10	MONTH 5 Hour 14	DAY 21 MINUTF 15	YEAR 75 SEC 36	SITE 84	NCHAN 1

NREC 47 LENGTH 3001	115	MONTH 5 HOUR 14	DAY 21 Minute 15		SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 115 SR 10	5 HOUR	DAY 21 Minute 15	YEAR 75 SEC 36	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	115 SR	5 40UR	DAY 21 MINUTE 15	75 SEC	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	115	5 HOUR	DAY 21 MINUTE 15	75	SITE C4	NCHAN 1
NREC 47 Length 3001	115	5	DAY 21 MINUTE 15	75	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	10 115 SR 10	5	DAY 21 MINUTE 15	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 115 5P 10	5	DAY 21 MINUTE 15	YEAR 75 SEC 30	SITE N3	NCHAN 1
NREC 47 LENGTH 3001	In 115 SR 10		DAY 21 Minute 15	YEAR 75 SFC 30	SITE	NCHAN 1
	In 116 58 10		DAY 20 MINUTE 13			NCHAN 1
NREC 47 Length 3001	10 116 5R 10	MONTH 5 HOUR 1	DAY 20 Minute 13	YEAR 75 Sec 4	SITE Bi	NCHAN 1
NREC 47 LENGTH 3001	In 116 58 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13	YEAR 75 SEC 4	SITE B2	NCHAN 1
NPEC 47 LENGTH 3001	ID 116 SR 10	MONTH 5 HOUR -	DAY 20 MINUTE 13	YEAR 75 SFC 4	SITE R3	NCHAN 1

NREC 47 LENGTH 3001	ID 116 SR 10	MONTH 5 Hour 1	DAY 20 MINUTE 13	YEAR 75 SEC 4	SITE B4	NCHÁN 1
NREC 47 LENGTH 3001	ID 116 SP 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13	YEAR 75 SEC 4	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 116 SR 10	MONTH 5 HOUR 1	DAY 20 Minute 13	75	CS SITE	NEHAN 1
NREC 47 LENGTH 3001	ID 116 SR 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13	75	SITE C3	NEHAN 1
NREC 47 LENGTH 3001	ID 116 SP 10	5	DAY 20 MINUTE 13	75	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 116 SP 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 116 SR 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13	YEAR 75 SFC 4	SITE D2	NCHAN 1
NREC 47 LENGIH 3001	ID 11e SP 10	MONTH 5 HOUR 1	DAY 20 MINUTE 13		SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 116 SP 10		DAY 20 MINUTF 13			NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SFC 47	SITE	NCHAN 1
NREC 47 LENGIH 3001	ID 117 50 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	SITE R1	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HUUR 3	DAY 19 MINUTE 36	YEAR 75 SFC 47	SITE	NCHAN 1

NREC 47 LENGTH 3001	ID 117 SP 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SFC 47	SITE 83	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HOUR 3	DAY 19 MTNUTE 36	YEAR 75 SEC 47	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 Hour 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	C5 SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 117 SR 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 117 SR 10	MONTH 5 HOUR 3	DAY 19 MINUTE 30	YEAR 75 SEC 47	SITE P1	NCHAN 1
NREC 47 LENGTH 3001	ID 117 58 10	MONTH 5 HOUR 3	DAY 19 MINUTE 36	YEAR 75 SEC 47	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 117 58 10	MONTH 5 Hour 3	DAY 19 MINUTF 36	YEAR 75 SFC 47	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 117 5P 10	MONTH 5 HOUR 3	DAY 19 MINHTE 36	YEAR 75 SFC 47	SITE D4	NCHAN 1
NREC 47 LFNGTH 3001	ID 118 SR 10	MONTH 5 HOUR 6	DAY 18 Minutf 7	YEAR 75 SEC 45	SITE	NCHAN
NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 HOUR 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	SITE B1	NCH4N 1

NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 Hour 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	SITE 82	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 Hour 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 Hour 6	1.8	YEAR 75 SEC 45	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SP 10	MONTH 5 HOUR 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	118	MONTH 5 HOUR 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	C2 SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 HOUR 6	1.8	YEAR 75 SEC 45	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SP 10	MONTH 5 HOUR 6	18	YEAR 75 SEC 45	SITE C4	NCHAN 1
MREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 HOUR 0	18	YEAR 75 SEC 45	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 118 SP 10		DAY 18 Minute 7		DS SITE	
NREC 47 LENGTH 3001	ID 118 SR 10	MONTH 5 Hour 6	DAY 18 MINUTE 7	YEAR 75 SEC 45	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 118 38 10	MÜNTH 5 HOUR 6	DAY 18 MINHTE 7	YEAR 75 SEC 45	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	10 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE	NCHAN 1

NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 Minute 19	YEAR 75 SEC 51	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE 82	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SP 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SFC 51	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SP 10	МОМТН 5 НОЏЯ 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	10 119 58 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	C3 SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR -	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE C4	NCHAN 1
NREC 47 LENGTH 3001		MONTH 5 HOUR 0		YEAR 75 SFC 51		NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MONTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 119 SR 10	MGNTH 5 HOUR 0	DAY 17 MINUTE 19	YEAR 75 SEC 51	SITE D4	NCHAN 1

NREC 47 LENGTH 3001	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 120 SP 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	BS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	1D 120 SR 10	MONTH 5 HUUR 1	DAY 16 MINUTE 36	75	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 Minute 30	YEAR 75 SEC 26	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	10 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	10 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SFC 26	SITE C4	NCHAN 1
NREC 47 LENGTT 300	ID 120 SR 10	MONTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	IC 120 SR 10	МОМТН 5 НОПЯ 1	DAY 16 MINUTE 30	YEAR 75 SEC 26	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	1D 120 SP 10	YOUTH 5 HOUR 1	DAY 16 MINUTE 36	YEAR 75 SEC 26	SITE D3	NEHAN 1

NREC	ID	МОИТН	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	54	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	Δ0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	25	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	81	1
LENGTH	98	HOUR		SEC		
3001	10	5.5	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	1.4	75	82	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5.5	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	83	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	5.5	34	27		
NREC	ΙD	MONTH	ÐAY	YEAR	SITE	NCHAN
47	121	5	14	75	84	1
LENGTH	SP	HOUR		SEC		•
3001	1.0	5.5	34	27		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	C 1	1
LENGTH	SP	HOUR	MINUTE	SEC	•	-
3001	10	5.5	34	27		
NREC	10	MONTH	DAY	YLAR	SITE	NCHAN
47	121	5	14	75	C 5	1
LENGTH	SP	нося		SEC		•
3001	10	25	34	21		
NRFC	ΙO	MONTH	DAY	YEAD	SITE	NCHAN
47	121	5	14	75		1
LENGTH	SR	HOUR	MINUTE	SEC	C 3	1
3001	10	22	34	27		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5 × 10 × 10 × 10 × 10 × 10 × 10 × 10 × 1	14	75 75	511E	NCHAN 1
LENGTH	SP	HOUR	MINUTE	SEC	t. 4	1
3001	10	55	34	35 C		
NOSC	10	MONTH	n • v	VEAD	CITE	
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75 SEC	01	1
LENGTH	SP	HOUR	MINHTE	SFC		
3001	10	25	34	27		
NRFC	IΓ	MONTH	γΛ	YEAR	SITE	NCHAN
47	121	5	1.4	75	0.5	1
LEMGTH	SP	нопь	MINHTE	SEC		
3001	10	25	3.4	27		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	1 4	75	0.3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5.5	34	27		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	、 75	D 4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	55	34	27		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	A ()	1
LENGIH	SR	HOUR	MINUTE	SFC		
3201	1 0	()	33	50		
NREC	In	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	81	1
LENGTH	SR	HOUR	MINHTE	SEC		
3001	10	Ú	33	50		
NREC	Ιņ	монтн	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	82	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	50		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	R3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	50		
MREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13		84	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	Ú	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	152	5	13	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	U	33	50		
NRFC	ID	маитн	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C 2	1
LENGTH	SR	HOUR	MINUTE	SFC		•
3001	10	0	33	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C3	1
LENGTH	SP	HOUR	MINHTE	SEC		•
3001	10	0	33	50		
NREC	ID	момтн	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	04	1
LENGTH	SR	HQUR	MINUTE	SEC	-	•
3001	1 0	0	33	50		
MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	1.3	75	01	1
LENGTH	SP	норк	MINHTE	SEC	• •	•
3201	1.0	Ü	3.5	20		

NAVAL POSTGRADUATE SCHOOL MONTEREY CA F/6 17/10 APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U) JUN 77 C E IRVINE NPS-521877061 NL AD-A107 584 UNCLASSIFIED 5 # 7 40: 4107584

NREC 51 LENGTH 3201	ID 122 SR 10	MONTH 5 HOUR 0	DAY 13 MINUTE 33		SITE D2	NCHAN 1
NREC - 51 LENGTH 3201	1D 122 SP 10	MONTH 5 HOUR 0	DAY 13 MINUTE 33	YEAR 75 SEC 20	SITE D3	NCHAN 1
NREC 51 LENGTH 3201	152		DAY 13 MINUTE 33	YEAR 75 SFC 20	SITE D4	NCHAN 1
NREC 47 Length 3001	ID 123 SR 10	5	DAY 13 MINUTE 3c	YEAR 75 SEC 8	SITE	NCHAN 1
NREC 47 LENGTH 3001	123	MONTH 5 HOUR 12	DAY 13 MINHTE 36	75	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	10 123 SR 10	5	DAY 13 MINUTE 36	YEAR 75 SEC 8	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	ID 123 SR 10	5	DAY 13 Minute 36	YEAR 75 SEC	SITE B3	NCHAN 1
MREC 47 LENGTH 3001	ID 123 SR 10	MONTH 5 40UR 12	DAY 13 MINUTE 36	YEAR 75 SFC 8	SITE R4	NEHAN 1
NREC 47 LENGTH 3001	ID 123 SP 10	MONTH 5 HOUR 12	DAY 13 Minute 36	YEAR 75 SEC 8	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 123 SP 10	MONTH 5 HOUR 12	DAY 13 MINUTE 36	YEAR 75 SEC 8	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	10 123 SP 10	MONTH 5 HOUR 12	DAY 13 MINUTE 36	YEAR 75 SEC 8	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 123 SP 10	MONTH 5 HOUR 12	DAY 13 MINUTE 36	YEAR 75 SEC 8	SITE C4	NCHAN 1

NREC ID MONTH DAY YEAR SITE NCHAN						
NREC	NCHAN 1	 75 3FC	13 MINUTE	5 H0UR	123 SR	47 LENGTH
NREC		YEAR 75 SEC	DAY 13 MINUTE	MONTH 5 HOUR	10 123 SR	NREC 47 LENGTH
LENGTH SR HOUR MINUTE SEC 3001 10 12 36 8		75 SEC	DAY 13 MINUTE	MONTH 5 HOUR	ID 123 SR	NREC 47 LENGTH
124	NCHAN 1	75 SEC	13 MINUTE	5 HOUR	123 SR	47 LENGTH
124	NCHAN 1	75 SEC	12 MINUTE	5 HOUR	124 SR	47 LENGTH
124 5 12 75 F2 12 13 14 14 15 12 15 15 15 15 15 15	NCHAN 1	75 SEC	12 MINUTE	5 HOUR	124 SP	47 LENGTH
124 5 12 75 83 12 13 14 14 15 14 15 15 15 15		75 SFC	12 MINUTE	5 HUUR	124 SP	47 LENGTH
124 5 12 75 84 14 15 15 15 15 15 15 1		75 SEC	12 MINUTE	5 HOUR	124 SR	47 LENGTH
47	NCHAN 1	 75 SEC	12 MINUTE	5 HOUR	124 SR	47 LENGTH
47 124 5 12 75 C2 1 LENGTH SR HOUR MINUTE SEC 3001 10 12 1 36 NREC ID MONTH DAY YEAR SITE NCHAN 47 124 5 12 75 C3 1 LENGTH SR HOUR MINUTE SEC	NCHAN 1	75 SEC	12 MINUTE	5 HOUR	124 SP	47 LENGTH
47 124 5 12 75 C3 1 LENGTH SR HOUR MINUTE SEC	NCHAN 1	75 SEC	12 MINUTE	5 HOUR	124 SP	47 LENGTH
	NCHAN 1	75 SEC	12 MINUTE	5 HOUR	124 SR	47 LENGTH

	124 SR	MONTH 5 HOUR 12	12 MINUTE	75 SEC	SITE C4	NCHAN 1
NREC 47 LENGTH 3001		5 HOUR	DAY 12 MINUTE 1	75 SEC	SITE D1	NCHAN 1
47 LENGTH	124 SR	5 HOUR	DAY 12 MINHTE 1	75 SEC	SITE D2	NCHAN 1
47	124	5 HOUR	DAY 12 MINUTE 1	75	SITE D3	NCHAN 1
	124	5 HOUR	DAY 12 MINUTE 1	75	SITE D4	
NREC 47 LENGTH 3001	ID 125 SP 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YE AR 75 3FC 10	SITE	
NREC 47 LENGTH 3001	IP 125 SR 10	МППТН 5 НОЦЯ 12	DAY 11 MINUTE 30	YEAR 75 SEC 10	SITE	NCHAN 1
NREC 47 LENGTH 3001	125 58		DAY 11 MINUTE 30		SITE 82	NCHAN 1
NREC 47 LENGTH 3001	IN 125 SR 10	MONTH 5 RUUH 12	DAY 11 MTNUTE 30	YEAR 75 SEC 10	SITE B3	NCHAN 1
NRFC 47 LENGTH 3001	10 125 SR 10	MONTH 5 HOUR 12	DAY 11 MTNUTF 30	YEAR 75 SFC 10	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 401'R 12	DAY 11 MINUTE 30	YEAR 75 5FC 10	SITE	NCHAN 1
NHEC 47 LENGTH 3001	Ir 125 58 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 3FC 10	CS SITE	NCHAN 1

NREC 47 LFNGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 SEC 10	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 SEC 10	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 SEC 10	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 SFC 10	SITE D2	NCHAN 1
MREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 SEC 10	51TE 03	aCr+A/q 1
NREC 47 LENGTH 3001	ID 125 SR 10	MONTH 5 HOUR 12	DAY 11 MINUTE 30	YEAR 75 5FC 10	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 126 SP 10	MONTH 5 HOUR 23	DAY 11 TUNTE 22	YEAR 75 850 21	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 126 SR 10	MONTH 5 HOUR 23	DAY 11 32	YEAR 75 540 21	SITE Pl	NCHAN 1
NREC 47 LENGTH 3001	ID 126 SR 10	HTMOM 5 RUGH 23	DAY 11 MINHIF 22	YE 18 75 550 21	SITE R2	NCHAN 1
NREC 47 LENGTH 3001	19 126 SR 10	MONTH 5 HOUR 23	11 11 22	YE & R 75 SFC 21	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	IO 126 SR 10	MONTH 5 HOUR 23	DAY 11 MINHIE 22	YE 1R 75 of 0 21	SITE B4	NCHAN 1
MREC 47 LENGTH 3001	ID 126 SP 10	MONTH 5 HOUR 23	SS NAINNIE NAA	¥6.43 75 3€0 21	SITE C1	NCHAN 1

17	CHAN CHAN CHAN CHAN CHAN 1
NREC	CHAN 1 CHAN 1
NREC ID MONTH DAY YEAR SITE NI	CHAN
17	CHAN
NREC ID MONTH DAY YEAR SITE NU 47 126 5 11 75 D1 LENGTH SP HOUR MTNUTE SEC 3001 10 23 22 21 NI MREC ID MONTH DAY YEAR SITE NI NI	1 THAN
126	
17	
126 5 11 75 D4	CHAN 1
47 127 5 7 75 A0 LENGTH SR HOUR MINUTE SEC 3001 10 17 54 56 NREC ID MONTH DAY YEAR SITE NO. 47 127 5 7 75 B1	CHAN 1
47 127 5 7 75 R1	THAN 1
LENGTH SP HOUR MINUTE SEC 3001 10 17 54 56	CHAN 1
NREC ID MONTH DAY YEAR SITE NO 47 127 5 7 75 82 LENGTH SR HOUR MINUTE SEC 3001 10 17 54 56	HAN 1
NREC ID MONTH DAY YEAR SITE NO 47 127 S 7 75 B3 LENGTH SR HOUR MINUTE SEC 3001 10 17 54 56	HAN 1
NREC ID MONTH DAY YEAR SITE NO 47 127 5 7 75 84 LENGTH SR HOUR MINUTE SEC 3001 10 17 54 56	HAN

NREC	ΙD	мпитн	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	Cl	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	1 0	1 7	54	56		
NREC	10	нтиом	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C 5	1
LENGTH	SF	HOUR	MINUTE	SFC		
3001	10	17	54	56		
NREC	ID	MONTH	DWA	YEAR	SITE	NCHAN
47	127	5	7	75	C 3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C 4	1
LENGTH	SP	ноия		SEC		
3001	1.0	17	5.4	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D 1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	1 7	54	56		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	50	1
LENGIH	SP	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	Ιņ	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D3	1
LENGTH	SP	HOHB	MINUTE	SFC		
3001	10	1 7	54	56		
MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D4	1
LENGIH	SR	HOUR		SEC		
3001	10	17	54	56		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	Δ ()	1
FENGIH	SP	HOUR	MINUTE	SFC		
3001	10	5	30	26		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	P1	1
LENGIH	SR	HOUR	MINHIF	SEC		
3001	10	5	30	26		
MPEC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	P 2	1
LENGTH	SR	H011B	MINUTE	SFC		
3001	10	5	٦0	26		
NREC	In	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	B 3	1
LENGTH	SP	HOUM	MINUTE	SFC		
3001	10	5	30	26		

NCHAN 1	SITE B4	75 3FC	DAY 5 Minute		ID 128 SP	NREC 47 LENGTH
NCHAN	SITE	26 YEAR	30 DAY	5 MONTH	10	3001 NREC
1	C 1		5 MINUTE 3U	5 HOUR 5	128 SR 10	47 LENGTH 3001
NCHAN 1	C2 SITE	75 SEC	DAY 5 MINUTE 30		128	NREC 47 LENGTH 3001
NCHAN 1	SITE C3	YE AR 75	DAY 5 MINUTE 30	MONTH 5	ID 128	NREC 47
	SITE C4	75	DAY 5 MINUTE 30	5	ID 128 SP 10	NREC 47 LENGTH 3001
NCHAN 1	SITE D1	75	DAY 5 MINUTE 30	5	ID 128 SP 10	NREC 47 LENGTH 3001
	SITE D2	75	DAY 5 MINUTE 30	5	ID 128 SR 10	NREC 47 LENGTH 3001
NCHAN 1	SITE N3	75	DAY 5 MINUTE 30		128	NREC 47 LENGTH 3001
			DAY 5 MINUTE 30		ID 128 SR 10	NREC 47 LENGTH 3001
NCHAN 1	SITE	YEAR 75 SEC 32	DAY 3 MINUTE 24	MONTH 5 HOUR 5	ID 129 SR 10	NREC 47 LENGTH 3001
NCHAN	SITE R1	YEAR 75 SEC 32	DAY 3 MINUTE 24	MONTH 5 HOUR 5	ID 129 SP 10	NREC 47 LENGTH 3001
NCHAN 1	SITE B2	YEAR 75 SFC 32	DAY 3 MTNUTF 24	MONTH 5 HOUR 5	ID 129 SR 10	NREC 47 LENGTH 3001

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	P.3	1
	SR	HOUR				
3001	10	5	24	32		
NREC.	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	1 0	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C 1	1
		HOUR				
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C 5	1
LENGTH	SP	HOUR	MINUTE			
3001	10	5	24	32		
		MONTH	DAY		SITE	NCHAN
47	129	5	3	75	C 3	1
LENGTH	SR	HOUR		SFC		
3001	10	5	24	32		
			DAY	YEAR		
47	129	5	3	75	C 4	1
LENGTH	SR 10	HOUR 5		SEC 32		
3001	1 0	3	24	32		
NREC	ID		DAY			
47	129	5	3	75 SEC	D 1	1
LENGTH 3001	SR 10	HOHR 5	MINUTE 24	38.0		
,5001						
NREC	ID	MONTH		YEAR		NCHAN
47	129	5	3 MINHTE	75	0.5	1
LENGTH		ี	MINITE 24	37 L		
3001	1 0	3	74	۶۵		
NREC			DAY			NCHVN
47	129	5	3	75	N 3	1
LENGTH	SR	400H	MINUTE	SEC		
3001	10	5	24	32		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	150	5	3	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	Δ ()	1
LENGIH	SF	HOUR	MTNIITE 39	SEC 47		
3001	10	4	74	47		
NREC	IU	MONTH	DVA	YEAR	SITE	NCHAN
47	131	4	30	75	81	1
LENGTH	SP	норя	MINUTE	SEC		
3001	10	4	39	47		

	NREC	ΙĐ	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	82	1
	LENGTH	SP	HOUR	MINUTE	SEC		
	3001	10	4	39	47		
	MREC	10	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	A 3	1
	LENGTH	SP	HOUR	MINUTE	SEC		
	3001	1 0	4	39	47		
	NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	и	30	75	84	1
	LENGTH	SP	HOUR	MINUTE	SEC		
	3001	10	4	39	47		
	NPEC	ID	мпитн	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	C 1	1
	LENGTH	SR	HOUR	MINUTE	SFC		
	3001	10.	4	39	47		
	NREC	ΙÞ	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	C S	1
	LENGTH	SP	HOUR				_
	3001	10	4	39	47		
	NREC	In	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	C 3	1
•	LENGTH	SR	HOUR	MINUTE	SEC		•
	3001	10	4	39	47		
	NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	C4	1
	LENGTH	SP.	HOUR	MINUTE	SEC	•	•
	3001	10	4	19	47		
	NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	D1	1
	LENGTH	SP	HOHR		SFC	•	•
	3001	10	4	39	47		
	NREC	T D	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	07,5	1
	LENGTH	SP	HOUR	MINUTE	SFC		•
	3001	1.0	4	19	47		
	NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	n3	1
	LENGTH	SP	ноия	MINUTE	SEC		•
	3001	10	4	30	47		
	NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	47	131	4	30	75	D4	1
	LENGTH	SR	HOUR	MINUTE	SFC	., -	•
	3001	10	4	30	47		
	NREC	ΙD	MONTH	ŊΔY	YEAR	SITE	NCHAN
	47	132	4	30	75	Δ0	1
	LENGTH	SP	HOUR	MINUTE	SEC	_ •	•
	3001	10	4	53	43		
					*		

NREC	ID	момтн	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	B1	NCHAN 1
LENGTH	SR	HOUR	MINUTE	SEC	• • •	•
3001	10	4	53	43		
NREC	ID	молтн	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	82	1
LENGTH	SR	HOUR	MINUTE	SEC	_	•
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	83	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	53	43		
MREC	Iν	MONTH	DAY	YEAR	SITE	NCHAN
47	132	_ 4	30	75	B 4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	HTARM	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	Cl	1
LENGTH	SP.	HOUR	MINUTE	SEC		
3001	1 ()	4	53	43		
MREC	ID	моитн	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	0.5	1
LENGTH	3P	HOUR	MINHIE	SEC		
3001	1 0	4	53	43		
NREC	ID	МОИТН	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C 3	1
LENGTH	SP	HOUR	MINUTE	SEC 43		
3001	1 0	4	53	43		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C 4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	ч	53	43		
NREC	10	MONTH	DΑY			
47		а		75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	Ц	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	υS	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	ρΔΥ	YEAR	SITE	
47	132	4	30	75	D 3	1
LENGTH	SP 10	HOUR 4	MINUTE 53	SEC 43		
3001	10	4	7.5	4 5		
NREC	ÍĽ	MUNTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	D4	1
LENGTH	SP	H01:R	MTNUTE 53	SFC		
3001	10	4	7.3	43		

NHEC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	133	4	29	75	A 0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	19	32		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	133	4	29	75	81	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	3	19	32		
NOCC	ID	MONTH	DAY	YE AR	SITE	NCHAN
NREC 47	133	W () W H	29	75	82	1
LENGTH	SP	HOUR	MINUTE	SEC	, -	-
3001	10	3	19	32		
30 // 1		-				
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	133	4	29	75	B 3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	3	19	32		
					0175	1.61.41.
NREC	10	MONTH	DVA	YEAR	SITE	
47	133	4	29	75 SEC	H 4	1
LENGTH	SP • o	HOUR 3	MTNUTE 19	32		
3001	10	3	14	. · C		
NREC	Ιŋ	моитн	DAY	YEAR	SITE	NEHAN
47	133	4	وَحَ	75	C 1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	3	19	32		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	133	4	59	75	C.5	1
LENGTH	3P	H001b	MINUTE	SEC		
3001	10	3	19	32		
NULEC	10	MONTH	DAY	YEAR	SITE	NCHAN
NREC 47	10 133	4	29	75	C3	1
LENGTH	25		MINHTE	SEC	0.5	•
3001	10	3	19	32		
3,01	1 7	,				
NREC	ΙL	MUNTH	DAY	YEAR	SITE	NCHAN
47	133	4	59	75	C 4	1
LENGTH	SÞ	HODS	MINUTE	SEC		
3001	10	3	19	32		
NREC	ID	HTMON	DAY	YEAR	SITE	NCHAN
47	133	4	29 MINUTE	75 SEC	01	1
LENGTH 3001	S.R • a	HOUR 3	MINUTE 19	32		
3001	10	,	1 7	36		
MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	133	4	29	75	245	1
LENGTH	SP	HOTIR	MINUTE	SEC	_	-
3001	10	3	19	32		
MRFC	10	HTMON	DAY	YEAR	SITE	NCHAN
47	133	4	29	75	03	1
LENGTH	50	ਜ਼ਿ⊞ਮ	MINUTE	SEC		
3001	10	3	19	35		

	NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
	47	133	4	29	75	04	1
	LENGTH	SP	HOUR	MINHTE	SFC		
	3001	10	3	19	32		
•	NREC	ΙD	нтиом	DAY	VE AR	SITE	NCHAN
	47	134	4	29	75	Δ 0	1
	LENGTH	SP	HOUR	MINUTE			
	3001	10	15	47	47		
	NRFC	10	MONTH	DAY		SITE	NCHAN
	47	134	4	29	75	₽1	1
	LENGTH		H0118	MINUTE	SEC		
	3001	10	15	47	47		
	NREC	IU	MONTH	DAY			
	47	134	4	29		B2	1
	LENGTH	SR	HOUR	MINUTE	SFC		
	3001	10	15	47	47		
	NREC	ID		DAY			NCHAN
	47	134	4	29	75	B 3	1
	LENGTH		HOUR				
	3001	10	15	47	47		
	NREC	ΙD		DAY	YEAR		
	47	134	4	29	75 2 7 5	P4	1
	LENGTH	SP		MINHTE			
	3001	10	15	47	47		
	NREC	ΙC		DAY		SITE	
	47	134	4	29 MINUTE	75	C 1	1
	LENGTH	Sp					
	3001	10	15	47	47		
	NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
	47	134	4	29	75	C 2	1
	LENGTH	Sp	HOHR	MINUTE	SFC		
	3001	10	15	47	47		
	MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	47	134	4	29	75	C 3	1
	LENGTH	SP	H01/B		SEC		
	3001	10	15	47	47		
	MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	47	134	4	29	7 5	C 4	1
	LENGTH	SP	HOIR	MINUTE	SEC		
	3001	1 0	15	47	47		
	NREC	In	MONTH	DAY	YEAR	SITE	
	47	134	4	29	75	<i>U</i> 1	1
	LENGTH	SR	HOUR	MINUTE	SEC		
	3001	10	15	47	47		
	NREC	IU	MONTH	DAY	YEAR	SITE	
	47	134	4	29	75	υS	1
	LENGTH	SP	HONH	MINHTE	SEC 47		
	3001	1.0	15	47	a /		

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	D3	1
LENGTH	SR	HOUR	MINNTE	SFC		
3001	10	15	47	47		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	04	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	15	47	47		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	A 0	1
LENGTH	SÞ	HOUR	MINUTE	SFC		
3001	10	5	12	53		
NREC	ID	MONTH	DAY	YEAH	SITE	NCHAN
47	135	4	28	75	P 1	1
LENGTH	SÞ	HOUR	MINHTE	SEC		
3001	10	2	12	53		
NREC	LO	MONTH	OAY	YEAR	SITE	NCHAN
47	135	4	28	75	58	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	2	12	53		
NREC	10	MONTH	DAY	YEAH	SITE	NCHAN
47	135	4	28	75	P3	1
LENGIH	SP	ногр	MIMULE	SFC		
3001	10	5	12	53		
NREC	Ιŋ	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	9.5	75	Ρų	1
LENGTH	SR	HOUK	MINUTE	SEC		
3001	10	5	12	53		
MREC	10	MONTH	DAY	AEVS	SITE	NCHAN
47	135	4	28	75	C 1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	12	53		
NREC	10	MONTH	DAY	YEAR	SITE	HCHAN
47	135	4	28	75	c s	i
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	5	12	53		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	ĄŞ	75	6.3	1
LENGTH	SP	HOUR	MINNIE	SEC		
3001	10	۶	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	ű	28	75	€4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	15	53		
NREC	10	MONTH	OAY	YEAR	SITE	NCHAN
	125	4	28	75	D I	1
47				_		•
LENGTH 3001	98 10	H00k 2	MINUTE	5F.C 53		•

NREC 47	IO 135	MONTH 4	28 D A Y	YE 4R 75	SITE D2	NCHAN 1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	12	53		
NREC	ID	MONTH	DVA	YEAR	SITE	NCHAN
47	135	4	28	75	D 3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	12	53		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	04	1
LENGTH	SR	ноия	MINUTE	SEC	., -	•
3001	10	2	12	53		
3001	. •	_	, -			
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	85	75	Δ ()	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1 1	18	16		
NREC	ID	MUNTH	DAY	YEAR	SITE	NCHAN
47	136	4	_ 85	75	81	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	11	18	16		
NREC	10	MONTH	DΔY	YEAR	SITE	NCHAN
47	136	4	28	75	82	1
LENGTH	SP	HOUR		SEC	172	•
3001	10	11	18	16		
3001	. 0	• •	10	, ,		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	85	75	83	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	1 1	18	16		
				WE 4.5	0175	
NREC	Ιŋ	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75 256	RЦ	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	1 1	18	16		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	_		28			
LENGTH	SR	ноия	MINUTE	SEC	•	•
3001	10	1.1	18	16		
	-	• •	_			
NREC	ĪΓ	HTROM	DAY	YEAR	SITE	NCHAN
47	136	4	85	75	СS	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	1 1	18	16		
NOSS	10	MONTH	D • V	VEAD	CITC	N1 C 44 A 4
NREC 47	I D 136	MONTH	DAY	YEAR 75	SITE C3	NCHAN
LENGTH	SR	4 Hotik	85 MTNUTF	SEC	L 3	1
3001	10	11	18	10		
3001	1 0	1 1	1 *}	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		-
3001	10	1 1	18	1 0		

NREC 47 LENGTH	ID 136 SR	MONTH 4 HOUR	DAY 28 Minute	YEAR 75 Sec	SITE D1	NCHAN 1
3001	10	11	18	16		
NREC 47	ID 136	MONTH 4	DAY 28	75	SITE	NCHAN 1
JENGTH 3001	5 P 10	HOUR 11	MINUTE 18	SFC 16		
NREC 47	136	MONTH 4	28 V A Q	75	SITE D3	NCHAN 1
LENGTH 3001	SR 10	HOUR 11	MTNUTE 18	SFC 16		
NREC 47	ID 136	MONTH 4	DAY 28	YEAR 75	SITE D4	NCHAN 1
LENGTH	SP	4 HOUR	MINUTE	SFC	•	•
3001	10	1 1	1.8	16		
NREC 47	ID 137	MONTH 4	28 8 5		SITE AO	NCH4N 1
LENGTH	SR	HOUR	MINUTE	75 SEC	-0	•
3001	10	12	10	7		
NREC	_	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4 HOUR	28	75 SFC	81	1
LENGTH 3001	S₽ 10	12	MINUTE 10	5FC 7		
			DAY	VEAD	SITE	N.C.U.A.N.
NREC 47	ID 137	MDNTH 4	7 A O	YEAR 75	65 21.5	NCHAN 1
LENGTH	SR	400R		SFC		•
3001	10	12	10	7		
NREC	-	мпитн	DAY		SITE	
47	137	4 HuljR	28 MINUTE	75 0 5 6	B 3	1
LENGTH 3001	S.P. 1 U	12	10	7		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
			28	75		1
LENGTH	SP	HOUR	MINUTE			
3001	10	1 2	1 0	7		
NREC	[D 137	моитн	D 4 Y	YEAR 75	SITE C1	
47 LENGTH	SP.	4 HOUR	MINUTE	SEC	1.1	1
3001	10	12	10	7		
NREC	ΙD	MONTH	UAY	YEAR	SITE	NCHAN
47	137	4	28	75	C 5	1
LENGTH	SR	HOUR	MINUTE	SEC 7		
3001	10	1 2	10	/		
MREC	ID	MONTH	V A ()	YEAR	SITE	_
47	137	4 401:3	28 MINHTE	75 SFC	0.3	1
LENGTH 3001	SR 10	HOUR 12	10	3 F C 7		
	• "		• '/	•		

NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	C 4	ı
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D 1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1 0	7		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	0.5	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	04	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ΙĎ	MONTH	DAY	YEAR	SITE	
47	138	4	27	75	۸0	1
LENGTH	SF	HOUR	MINUTE	SEC		
3001	10	21	45	55		
NREC	ID	MONTH	DAY	YEAR	SITE	
47	138	4	27	75	81	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	21	45	\$5		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	82	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	1 0	21	45	\$5		
NREC		MONTH	DAY	YEAR		NCHAN
47	138	4	27	75	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1 0	21	45	55		
NREC	IU	MONTH	DVA	YEAR	SITE	NCHAN
47	138	4	27	75	84	i
LENGTH	SP	HOUR	MINHTE	SFC		
3001	1 0	21	45	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NEHAN
47	138	4	27	75 056	C 1	1
LENGTH	SP 10	HOUR	MINUTE	SEC		
3001	10	21	45	52		
MREC	In	MÜNTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75 SEC	C 5	1
LENGTH 3001	SR 10	HOUR 21	MJNUTF 45	SEC 22		
3001	1.17	۲ ا	u	c c		

	NREC 47	ID 138	MONTH 4	DAY 27	YEAR 75	SITE C3	NCHAN 1
	LENGTH	SP	HOUR	MINUTE	SEC	CS	ı
	3001	10	21	45	55		
	NREC 47	ID 138		DAY 27	YEAR 75	SITE C4	NCHAN 1
	LENGTH	SR	HOUR 21	27 MINUTE	SEC	G	•
	3001	10		45	25		
	NREC 47	10 138	MONTH 4	27	YEAR 75	SITE	NCHAN 1
	LENGTH 3001	SP 10	HOUR 21	MINHTE 45	SFC	-	_
					55		
	NREC 47	ID 138	4	27	YEAR 75	SITE D2	NCHAI _I 1
	LENGTH 3001	SR 10	HOUR 21	MINUTE 45	SFC 22		
				_			
	NREC 47	ID 138	Ц	27	YEAR 75	SITE D3	NCHAN 1
		SR		MINUTE	SEC		_
	3001	10	21	45	22		
	NREC 47	10 138	MANTH 4	-	YEAR	SITE	• • • •
				27 MINHTE	75 SEC	D4	1
	3001	10	21	45	25		
		ID	MUNTH		YEAR	SITE	NEHAN
		139	4 400H	25 MINUTE	75 650	Δ ()	1
	3601	10	1	1	54		
	NREC	10	нтипм	DAY	YEAR	SITE	NCHAN
	57	139	4	25	75	B.1	1
	LENGTH 3601	SR 10	1	MTNUTE 1	SEC 54		
	NREC	10	MONTH	DAY	YEAD	SITE	NCHAN
	57	139	4	ะรั	75	85	1
	LENGTH	SR	HOUR	MINUTE	SEC		
	3601	10	1	1	54		
	NREC 57	IN 139	MONTH	DAY	YEAR	SITE	NCHAN
	LENGTH	SP	4 HOUR	25 MINUTE	75 SEC	B 3	1
	3601	10	1	1	54		
	NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
	57	139	4	25	75	B4	1
	LFNGTH 3601	SR 10	HOUR 1	MTNUTE 1	SFC 54		
	NRFC	[0	MONTH	DAY	YEAR	SITE	NCHAN
	57	179	4	25	75	C 1	1
ł	LENGTH	SP	HOUR	MINHTE	SFC	-	,
	3601	10	1	1	54		

NREC	ID	MONTH		YEAR	SITE	_
57 LENGTH	139 SP	4 HOUR	25 MINUTE	75 SEC	C 2	1
3001	1 0	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	
57 LENGTH	139 SP	4 HALIR	25 MINUTE	75 SEC	C 3	1
3601	10	1	1	54		
NREC		моитн	DΔY	YEAR	SITE	
57 LENGTH	139 SR	4 H0UB	25 MINUTE	75 SEC	C 4	1
3601	10	1	1	54		
NREC		MONTH		YEAR		NCHAN
57 LENGTH	139	4	25 MINUTE	75 8# 0	D 1	1
3601	10	1	1	54		
NREC		MONTH	DAY		SITE	NCHAN
57 LENGTH	139	4 40110	25 MINUTE	75 850	D2	1
3601	10	1	1	54		
			DAY		SITE	
57 LENGTH	139 SR	4 4011 9	25 MINUTE	75 SEC	n 3	1
3601	10	i	1	54		
NREC	ID		DAY	YEAR	SITE	
57 LENGTH	139 SP	4 HOUR	25 MINUTE	75 SEC	04	1
3601	10	!	1	54		
NREC	01		DAY	YEAR	SITE	
47 LENGTH	140 SR	HOUR	24 MINUTE	75 SEC 44	Δ ;	1
3001	1 0	23	8	44		
NREC			DAY		SITE	
47 LENGTH	140 SP	4 ноџа	24 MINUTE	75 SEC	81	1
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	140 SP	4 HOUR	24 MINUTE	75 SEC	82	1
3001	10	23	8	44		
NREC	10	мпитн	DAY	YEAR	SITE	NCHAN
47 LENGIH	140 SP	4 400R -	24 MINUTE	75 SEC	B3	1
3001	1 0	23	8	44		
MREC	10	мпитн	DAY	YEAR	SITE	NCHAN
47 LENGTH	140 SP	4 HOUR	24 MINUTE	75 SFC	84	1
3001	10	23	8	44		

NREC 47	ID 140	MONTH 4	DAY 24 MINUTE		SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 8	SFC 44		
NREC 47	140	MONTH 4	24	YEAR 75 SEC	SITE C2	NCHAN 1
LENGTH 3001	SR 10	23	MINUTE 8	44		
NREC 47 Length	140	MONTH 4 HOUR	DAY 24 MINUTE	YEAR 75	SITE C3	NCHAN 1
3001	10		8	44		
NREC 47	140	MONTH 4	24	75	SITE C4	NCHAN 1
LENGTH 3001	SR 10		MINUTE 8	SEC 44		
NREC 47	140	4	DAY 24	75	SITE D1	NCHAN 1
LENGTH 3001	SP 10		MINUTE 8	SEC 44		
NREC 47	ID 140	МОМТН 4	DAY 24	YE AR 75	SITE	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 8	SFC 44		
MREC 47	ID 140	MONTH 4	DAY 24	YEAR 75	SITE D3	
LENGTH 3001	5 P 10	HOUR 23	MINUTE 8	SFC 44		
NREC 47	1D 140	MONTH 4	DAY 24	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 8	SFC 44		
NRFC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE	NCHAN 1
LENGTH 3001	SP 10	HUL-R 23	MINUTE 59	SFC 2		
NREC 47	ID 141	MONTH 4	D4 Y	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SP 10	HOUR 23	MINUTE 59	SFC 2		
NREC 47	1D 141	MONTH 4	0 A Y 23	YEAR 75	SITE B2	NCHAN 1
LEMGTH 3001	3P 10	HOUR 23	MINUTE	SEC 2	·/ -	•
NRFC 47	ID 141	MONTH 4	£ 4 G	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	5P 10	ноия 23	MINUTE 59	SFC 2	,, ,	1

NREC 47 LENGTH 3001	10 141 SR 10		DAY 23 MINHTE 59	YEAR 75 SEC 2	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 141 SR 10	MONTH 4 Hour 23	DAY 23 MINUTE 59	75	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 141 SP 10	4	DAY 23 MINUTE 59	75	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 141 SR 10	1	DAY 23 DAY	YEAR 75 SEC 2	SITE C3	NCHAN 1
NRFC 47 LENGTH 3001	ID 141 SR 10	4	DAY 23 MINUTE 59	YEAR 75 SFC 2	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 141 SR 10	MONTH 4 HOUR 23	DAY 23 MINUTE 59	YEAR 75 SEC 2	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	141	MONTH 4 HOUR 23	DAY 23 MINUTE 59	YEAR 75 SEC 2	SITE D2	NCHAN 1
NREC 47 LENGTH . 3001	ID 141 SR 10	4 HOUR	DAY 23 MINUTE 59	75	SITE D3	NCHAN 1
NRFC 47 LENGTH 3001		4	DAY 23 MINUTE 59			
NREC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	DAY 23 MINUTE 26	YEAR 75 SEC 54	SITE	NCHAN 1
NRFC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	DAY 23 MINUTE 26	YEAR 75 SFC 54	SITE R1	NCHAN 1
NRFC 47 LENGTH 3001	ID 142 SP 10	MONTH 4 HOUR 0	DAY 23 MINHTE 26	YEAR 75 SEC 54	SITE B2	NCHAN 1

NREC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	YAG 3111111111111111111111111111111111111	YEAR 75 SEC 54	SITE R3	NCHAN 1
NREC 47 LFNGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	23	YEAR 75 SEC 54	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	23	YEAR 75 SEC 54	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 142 SR 10	u	DAY 23 MINUTE 26	YEAR 75 SFC 54	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	DAY 23 MINUTE 26	YEAR 75 SEC 54	SITE C3	nchan 1
NREC 47 LENGTH 3001	In 142 SR 10	MONTH 4 HOUR 0	23	YEAR 75 SEC 54	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 142 SR 10	MONTH 4 HOUR 0	56 MINNIE 53 DAA	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	142	MONTH 4 HOUR 0	04Y 23 MINHTE 26	7 5	SITE	NCHAN 1
NREC 47 LENGTH 3001	ΙD		DAY 23 MINUTE 26		SITE D3	NCHAN 1
NREC 47 LENGIH 3001	10 142 5P 10	MONTH 4 HOUR 0	DAY 23 MINUTE 26	YEAR 75 SEC 54	SITE 04	NCH4N 1
NREC 47 LENGTH 3001	ID 143 SP 10	MANTH 4 HOUR 5	DAY 23 MINUTE 23	YEAR 75 SFC 2	SITE	NCHAN 1
NREC 47 LENGTH 3001	1D 143 3P 10	мпютн 4 нишк 5	DAY 23 MINUTE 23	YEAR 75 SFC 2	SITE Ri	NCHAN 1

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NREC 47 LENGTH	ID 143 SR	MONTH 4 HOUR 5	DAY 23 TUUTF 23	YEAR 75 SFC	SITE B2	NCHAN 1
3001 NREC 47 LENGTH 3001	10 ID 143 SR 10	MONTH 4 HOUR 5	OAY 23 MINUTE 23	YEAR 75 SEC 2	SITE B3	NCHAN 1
NREC 47 LENGIH 3001	10 143 SR 10	MONTH 4 HOUR 5	DAY 23 MINHTF 23	YEAR 75 SEC 2	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	ID 143 SP 10	MONTH 4 HOUR 5	DAY 23 MINUTE 23	YEAR 75 SEC 2	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 143 SP 10	MONTH 4 HOUR 5	DAY 23 MINUTF 23	YEAR 75 SEC 2	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	ID 143 SR 10	MONTH 4 HOUR 5	DAY 23 MINUTE 23	YEAR 75 SFC 2	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	10 143 SP 10	MONTH 4 HOUR 5	DAY PAY MINUTE PAY	YEAR 75 SEC 2	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 143 SP 10	MONTH 4 HOUP 5	DAY 23 MINHTE 23	YEAR 75 SFC 2	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 143 SR 10	MONTH 4 HOUR 5	S3 MINUTE S3 DAY	YEAR 75 SEC 2	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 143 SR 10	MONTH 4 HOUR 5	DAY 23 MINUTE 23	YEAR 75 SEC 2	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 143 SR 10	MONTH 4 HOUR 5	DAY 23 MINUTE 23	YEAR 75 SFC 2	SITE 04	NCHAN L
NREC 47 LENGTH 3001	In 144 SP 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE	NEHAN 1

NREC 47 LENGTH 3001	10 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SFC 38	SITE B2	NEHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE R3	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	MONTH 4 HOUR 20	944 51 1001E 31	YEAR 75 SEC 38	SITE P4	NCHAN 1
NREC 47 LENGTH 3001	IP 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SP 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE C3	NCHAN 1
NPEC 47 LENGTH 3001	IP 144 50 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	HTMNM 4 RUOH 05	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	10 144 SP 10	MONTH 4 4012 20	DAY 21 MINUTE 31	YEAR 75 SEC 38	SITE	NCHAN 1
NREC 47 LFNGTH 3001	In 144 SP 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SFC 38	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 144 SR 10	MONTH 4 HOUR 20	DAY 21 MINUTE 31	YEAR 75 SFC 38	SITE D4	NCHAN 1

NREC 47		MONTH 4	DAY 15	YEAR 75	SITE	NCHAN 1
LENGIH	146 SR 10	HOUR 22	15 MINUTE 46	SEC 55	- •	•
NREC 47	146	MONTH	DAY 15	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 22	15 MTNUTF 46		•	•
NREC 47	ID 146	MONTH 4	DAY 15	YEAR 75	SITE R2	NCHAN 1
LENGTH 3001	SP	HOUR 22	MINUTE 46	SFC	,,,	•
NREC 47			DAY		SITE B3	NCHAN 1
LENGTH 3001	SR 10		15 MTNUTE 46	SFC	c o	1
NREC	ID 146	MONTH 4	DAY			
	SR	HOUR	15 MINUTE	SEC	B4	1
3001	10		46			
			DAY 15 MINUTE		SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 22	MINUTE 46	SFC 55		
	-		DAY	YEAR	SITE	
47 LENGTH	146 SR	HOUR	15 MINUTE	75 SEC	C.5	1
3001	10	2.5	46	55		
NREC 47	ID 146		DAY	YEAR 75	SITE C3	NCHAN 1
LENGTH	2 H	ноия	15 MINUTE	SEC		•
3001	10	55	46	55		
NREC 47	[n 146	MONTH 4	DAY 15	YE A R 75	SITE C4	NCHAN 1
LENGTH	SP	HOUR	MINUTE	SFC	0.4	•
3001	10	25	46	55		
NREC 47	I	MONTH 4	DAY 15	YEAR 75	SITE D1	NCHAN 1
LENGTH	SP	HOUR	MINUTE	SEC	.,,,	•
3001	10	55	46	55		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	146 SP	4 нопе	15 MINUTE	75 SFC	υ2	1
3001	10	52	46	55		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	146 SP	4 អបូប ន	15 MINUTE	75 SEC	D 3	1
3001	10	25	46	55		

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NRFC 47 LFNGTH 3001	ID 146 SR 10	MONTH 4 HOUR 22	DAY 15 MINUTE 46	75	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 147 SR 10	4	DAY 14 MINUTE 10	YEAR 75 SFC 12	SITE	NCHAN 1
NREC 47 LENGTH 3001	147	MONTH 4 HOUR 13	14	SFC	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	147		DAY 14 MINUTE 10		SITE 82	NCHAN 1
NREC 47 LENGTH 3001	ID 147 SP 10	4	DAY 14 MINUTE 10	75 SEC	SITE 83	NCHAN 1
NREC 47 LENGTH 3001	ID 147 SR 10	4	DAY 14 MINUTE 10	75	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	I n 147 SR 10	4	DAY 14 MINUTE 10	YEAR 75 SFC 12	SITE C1	
NREC 47 LENGTH 3001	ID 147 SP 10	MONTH 4 HOHR 13	DAY 14 MINUTE 10	YEAR 75 SFC 12	SITE C2	
NREC 47 LFNGTH 3001	ID 147 SR 10	MONTH 4 HUTR 13		YEAR 75 SFC 12	SITE C3	NCHAN 1
NREC 47 LENGIH 3001	ID 147 SR 10	MONTH 4 HUUP 13	DAY 14 MINHTE 10	YEAR 75 SFC 12	SITE C4	NCHAN 1
NRFC 47 LENGIH 3001	ID 147 SP 10	мпытн 4 нопря 13	DAY 14 MINHTE 10	YEAR 75 SFC 12	SITE Di	NCHAN 1
NREC 47 LENGTH 3001	10 147 SP 10	MONTH 4 HOUR 13	DAY 14 MTHUTF 10	YEAR 75 SEC 12	SITE	NCHAN 1

NREC 47 LENGTH 3001	ID 147 SR 10	MONTH 4 HOUR 13	DAY 14 MINUTE 10	YEAR 75 SEC 12	SITE D3	NCHAN 1
NREC 47 LFNGTH 3001	ID 147 SR 10	MONTH 4 HOUR 13	DAY 14 MTNUTE 10	YEAR 75 SFC 12	SITE D4	nchan 1
NREC 47 LENGTH 3001	ID 148 SR 10	MONTH 4 HOUR 15	DAY 13 MINUTE 14	YEAR 75 SEC 10	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 148 SP 10	MONTH 4 HOUR 15	DAY 13 MINUTE 14	YEAR 75 SFC 10	SITE	F.C ← A1. 1
NREC 47 LENGTH 3001	ID 148 SR 10	MONTH 4 HOUR 15	DAY 13 MINUTE 14	YEAR 75 SEC 10	SITE SITE	74HO41 1
NREC 47 LENGTH 3001	ID 148 SR 10	MONTH 4 HOUR 15	DAY 13 MINUTE 14	YEAR 75 SFC 10	SITE R3	ПСНАN 1
NREC 47 LENGTH 3001	ID 148 SR 10	мп <u>м</u> тн 4 нопр 15	DAY 13 MINUTE 14	YEAR 75 SFC 10	SITE R4	NCHAN 1
NREC 47 LENGTH 3001	ID 148 SP 10	ЖОМТН 4 НОЦР 15	DAY 13 MINUTE 14	YEAR 75 SEC 10	SITE C1	NCHAN 1
NREC 47 LFNGTH 3001	ID 148 SR 10	MONTH HOUR 15	DAY 13 MINITE 14	YEAR 75 SFC 10	SITE SITE	
NREC 47 LENGTH 3001	ID 148 SR 10	MONTH 4 HOUR 15	DAY 13 MINUTE 14	YEAR 75 SEC 10	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 148 SP 10	MONTH 4 4011R 15	DAY 13 MINUTE 14	YEAR 75 SFC 10	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 148 SP 10	MANTH 4 HODR 15	DAY 13 MINUTE 14	YEAR 75 SEC 10	SITE D1	NCHAN 1

NREC 47 LENGTH 3001	ID 148 SR 10	MONTH 4 HOHR 15	DAY 13 MINUTE 14	75	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	10 148 SR 10	мЛЛТН 4 НООЯ 15		YE AR 75	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 148 SP 10		DAY 13 MINHTE 14	YEAR 75 SFC 10	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	10 149 SR 10	4	DAY 13 MINHTF 30	YEAR 75 SEC 21	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 149 SP 10		DAY 13 MINUTE 30	YEAR 75 SEC 21	SITE B1	NCHAN 1
MREC 47 LENGTH 3001	ID 149 SR 10	4	DAY 13 MTNUTE 30	YEAR 75 SEC 21	SITE 82	NCHAN 1
NRFC 47 LENGTH 3001	ID 149 SP 10	MONTH 4 HOUR 16	DAY 13 MINUTE 30	YEAR 75 SFC 21	SITE 83	NCHAN 1
NREC 47 Length 3001	149		DAY 13 MINUTE 30	YEAR 75 SFC 21	SITE R4	NCHAN 1
NRFC 47 LENGTH 3001	IP 149 SP 10	MONTH 4 HOUR 16	DAY 13 MINUTE 30	YEAR 75 SEC 21	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 149 SP 10	MONTH 4 400P 15	DAY 13 MTNUTE 30	YEAR 75 SEC 21	SITE C2	NCHAN 1
NRFC 47 LENGTH 3001	IP 149 SP 10	MONTH 4 HOUR 16	DAY 13 MINUTE 30	YEAR 75 SFC 21	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 149 SR 10	MONTH 4 HOUR 16	DAY 13 MINHTF 30	YEAR 75 SEC 21	SITE C4	NCHAN 1

NREC 47 LENGTH 3001	ID 149 SR 10	MONTH 4 Hour 16	DAY 13 MINUTE 30	YEAR 75 SEC 21	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	10 149 SR 10	MONTH 4 HOUR 16	DAY 13 Minute 30	YEAR 75 SEC 21	SITE D2	NCHAN 1
NREC 47 LENGIH 3001	IP 149 SP 10	MONTH 4 HOUR 15	13	YEAR 75 SEC 21	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 149 SR 10	MONTH 4 HOUR 16	DAY 13 MINUTE 30	YEAR 75 SFC 21	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 150 SR 10	МОМТН 4 НОЙК 0	12	YEAR 75 SFC 10	SITE	NCHAN 1
NREC 47 LENGTH 3001	IP 150 SR 10	MONTH 4 HOUR 0	DAY 12 MINUTE 1	YEAR 75 SFC 10	SITE B1	NCHAN 1
NREC 47 LFNGTH 3001	ID 150 SR 10	MONTH 4 Hour 0	DAY 12 MINUTE 1	YEAR 75 SEC 10	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	ID 150 SP 10	MONTH 4 HOUR 0	DAY 12 MTNUTE 1	YEAR 75 SEC 10	SITE B3	NCHAN 1
NREC 47 LENGTH 3001		МПМТН 4 НОГР 0	DAY 12 MINUTE 1	YEAR 75 SFC 10		
NREC 47 LENGTH 3001	10 150 SP 10	MONTH 4 HOUR 0	DAY 12 MINUTE 1	YEAR 75 SEC 10	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	In 150 SP 10	MONTH 4 HOUR 0	DAY 12 MINUTE 1	YEAR 75 SFC 10	CS SITE	NCHAN 1
NREC 47 LENGTH 3001	Iņ 150 SR 10	HTMNM 4 RUOUR 0	DAY 12 MINUTE 1	YEAR 75 SEC 10	SITE C3	NCHAN 1

NREC 47 LENGTH 3001	ID 150 SR 10	MONTH 4 HOUR 0	10	YEAR 75 SEC 10	SITE C4	
NRFC 47 LENGTH 3001	ID 150 SR 10	MONTH 4 HOUR 0	1.2	YEAR 75 SEC 10	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 150 SR 10	4	DAY 12 MINUTE 1	75	SITE D2	NEHAN 1
NKEC 47 LENGTH 3001	IP 150 SP 10		MINUTE	YEAR 75 SFC 10	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	150 Sp	MONTH 4 HOUR 0	12	75	SITE D4	NCHAN 1
47	151	4	DAY 9 MINHTE 6	75	SITE	NCHAN 1
47	ID 151 SP 10	MONTH 4 HOUR 20	DAY 9 MINUTE 6	75	SITE B1	NCHAN 1
NREC 47 LFNGTH 3001	151	4	DAY 9 MINUTE 6	YEAR 75 SFC Ú	SITE 82	
NREC 47 LENGIH 3001	ID 151 SR 10	MONTH 4 HOUR 20	DAY 9 MINUTE 6	YEAR 75 SEC 0	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 151 SR 10	HTMOM HUUH 20	DAY Q MTNUTE 6	YEAR 75 SFC 0	SITE 84	NCHAN 1
NREC 47 LFNGTH 3001	ID 151 SP 10	HTMOM 4 RUGH 05	DAY 9 MINUTE 6	YEAR 75 SFC 0	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	10 151 38 10	MONTH 4 HOUR 20	PAY 9 MINUTE 6	YEAR 75 SEC 0	CS SITE	NCHAN 1

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	NREC 47 LENGTH 3001	151	4	DAY 9 MINHTF 6	75	SITE C3	
	NREC 47 LENGTH 3001		ú	DAY 9 MINUTE 6	75	SITE C4	
	NREC 47 LENGTH 3001	151 SP	MONTH 4 HOUR 20	DAY 9 MINUTF	YEAR 75 SEC 0	SITE D1	NCHAN 1
	NREC 47 Length 3001	10 151 SR 10	MONTH 4 HOUR 20	DAY 9 MINUTE 6	YEAR 75 SEC 0	SITE	NCHAN 1
	NREC 47 LENGTH 3001	151 SR	4 40UR	DAY 9 MINUTE 6	15	SITE 03	NCHAN 1
	NREC 47 LENGIH 3001	ID 151 SP 10	4	MINUTE	75	SITE D4	NCHAN 1
	NREC 0 LENGTH 0	10 151 SR	4 HOUR	DAY 9 MINUTE 0	75	SITE +	
		In 152 SR 10		04Y 8 MINHIF 58			
	NHEC 29 LENGTH 1801	ID 152 SR 10	MONTH 4 HOUR 1	DAY A MINUTE 58	YEAR 75 SEC 43	SITE 81	NCHAN 1
	NREC 29 LENGTH 1801	10 152 SR 10	MANTH 4 4008 1	DAY B MINHTE SB	YEAR 75 SFC 43	SITE	nchan 1
	NREC 29 1801	I n 152 SR 10	MOUR HOUR 1	DAY 8 MINUTE 58	YEAR 75 SEC 43	SITE B3	NCHAN 1
	NREC 79 LENGTH 1801	In 152 SP 10	момтн 4 ноця 1	DAY 8 Minhite 58	YEAR 75 SFC 43	SITE 84	NCHAN 1

NREC	10	HTHOM	DAY	YEAR	SITE	NCHAN
50	152	4	8	75	£ 7	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NHEC	10	MONTH	DAY	YEAR	SITE	NCHAN
24	152	4	8	75	CS	1
LENGTH	98	HOUR		SEC		
1901	10	1	58	43		
NREC	ID	HTANM	DAY	YEAR	SITE	NCHAN
29	152	ü	8	75	С3	1
LENGTH	SP	HOUR		SFC		
1801	10	1	58	43		
MREC	10	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	C 4	1
LENGTH	SP	HOUR	WINUTE	SEC		
1801	10	1	58	43		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	0.1	1
LENGTH	SP	HOUR		SFC		
1801	10	1	58	43		
NREC	1u	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	0.5	1
LENGTH	SP	HUUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	0.3	1
LENGTH	SR	HOUR		SEC		
1801	10	1	≂ 8	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	R	75	04	1
LENGTH	Sp	HOUR	WINDLE	SFC		
1801	10	1	58	43		
MREC	Ιr	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	ಕ	75	40	1
LENGTH	SP	ноия	MINUTE	SFC		
3001	10	5	58	6		
NREC	1 Ļ	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	81	1
LENGTH	\$ P	HOUR	MINUTE	SFC		
3001	10	5	58	6		
MREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	82	1
LENGTH	SP	HOUR	MINHIF	SFC		
3001	10	2	58	6		
NREC	10	MONTH	DVA	YEAR	SITE	NCHAN
47	153	4	В	75	R3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	58	6		

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NRFC 47 LENGTH 3001	ID 153 SP 10	MONTH 4 HOUR 2	DAY 8 MINUTE 58	YEAR 75 SFC 6	SITE B4	NCHAN 1
NREC 47 LENGTH 5001	10 153 SR 10	MONTH 4 HOUR 2	DAY 8 MINUTE 58	YEAR 75 SFC	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	153	MONTH 4 HOUR 2	DAY 8 MINUTE 58	YEAR 75 SEC 6	SITE	NCHAN 1
NHEC 47 LENGTH 3001	10 153 SR 10	MONTH 4 HOUR 2	DAY 8 MINUTE 58	YEAR 75 SEC 6	C3	NCHAN 1
NREC 47 LENGTH 3001	10 153 SR 10	47 MÜM 4 800H 2	DAY 8 MINUTE 58	YEAR 75 SEC	SITE C4	NCHAN 1
NRFC 47 LENGTH 3001	10 153 SR 10	HTMNM 4 RYDP 2	DAY 8 MINUTE 58	YEAR 75 SEC 6	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 153 SR 10	MONTH 4 HOUR 2	8	YEAR 75 SEC 6	517£	NCHAN 1
NREC 47 LENGTH 3001	ID 153 SR 10	MONTH 4 HUIIR 2	DAY 8 MINUTE 58	YEAR 75 SFC 6	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 154 SR 10	MONTH 4 HOUR 23		YEAR 75 SEC 4	SITE	NEHAN 1
NREC 47 LENGTH 3001	ID 154 SR 10	MONTH 4 HOUR 23	04Y 8 7111111 35	YEAR 75 SFC 4	SITE B1	NCHAN 1
NREC b7 LENGTH 3001	ID 154 SR 10	MONTH 4 HOUR 23	50 WINNIE 8 Dal	YEAR 75 SFC 4	SITE SB2	NCHAN 1
NREC 47 LFNGTH 3001	IP 154 SP 10	MONTH 4 HOUR 23	DAY DAY	YEAR 75 SFC 4	SITE R3	NCHAN 1

NREC 47 LENGTH 3001	154	MONTH 4 HOUR 23	DAY 8 MINUIF 26	75	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	154	MONTH 4 Hour 23	8	YEAR 75 SEC 4	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 154 SR 10	4	DAY 8 MINUTE 26	75	SITE	NCHAN 1
NREC 47 LENGTH 3001	ID 154 SR 10	4	PAY 8 MINNIF 85	YEAR 75 SEC 4		NCHAN 1
NREC 47 LENGTH 3001	10 154 50 10	4	EAY 8 MINUTE 26	YEAR 75 SFC 4	SITE C4	
NREC 47 LENGTH 3001	ID 154 58 10	4	DAY 8 MINUTE 26	YEAR 75 SEC 4	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	154 Sp	MONTH 4 HOUR 23	PAY STNUTE 26	YEAR 75 SFC 4	SITE D2	NCHAN 1
NRFC 47 LENGTH 3001	154		GAY 8 MINUTE 26		SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID 154 SP 10	4 HOUN 4 HOUN 73	26 2007 2007 2007	YEAR 75 SEC 4	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	IN 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE	NCHAN 1
NRFC 47 LENGIH 3001	155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SP 10	м <u>о</u> мтн 4 нопр 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	STIE SB	NCHAN 1

NREC 47 LENGTH 3001	ID 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE B4	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SP 10	MONTH 4 HOUR 3	10	YEAR 75 SEC 25	C2	NCHAN 1
NREC 47 LENGTH 3001	IN 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SR 10	4	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID 155 SP 10	MONTH 4 HOUR 3	10	YEAR 75 SEC 25	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	In 155 SP 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SFC 25	SITE D2	NCHAN 1
NRFC 47 LENGTH 3001	In 155 SR 10	-	DAY 10 MINUTE 18			
NREC 47 LENGTH 3001	IN 155 SR 10	MONTH 4 HOUR 3	DAY 10 MINUTE 18	YEAR 75 SEC 25	SITE N4	NCHAN 1

Headers for ACDA Data - Explosions

NRFC 47 LENGTH 3003	ID 37 SR 10	MONTH 3 HOUR 7	DAY 23 MINUTE 9	YEAR 71 SEC 22	SITE	NCHAN 1
NREC 47 LENGTH 3003	ID 37 SP 10	MONTH 3 HOUR 7	PAY 23 MTNIITE 9	YEAR 71 SEC 22	SITE Bi	NCHAN
NREC 47 LENGTH 3003	ID - 37 SR 10	MONTH 3 HOUR 7	DAY 23 MINUTE 9	YEAR 71 SEC 22	SITE B2	NCHAN 1
NREC 47 LENGTH 3003	ID 37 SP 10	MONTH 3 HOHR 7	DAY 23 MINUTE 9	YEAR 71 SFC 22	SITE B3	NCHAN 1
NREC 47 LENGTH 3003	ID 37 SP 10	MONTH 3 HOUR 7	DAY 23 MINUIF 9	YEAR 71 SEC 22	SITE B4	NCHAN 1
NREC 47 LENGTH 3003	ID 37 38 10	MONTH 3 HOUR 7	DAY 23 MINHTE 9	YEAR 71 SFC 22	SITE	NCHAN 1
NREC 47 LENGIH 3003	ID 37 SP 10	MONTH 3 HOLR 7	DAY 23 MINUIF 9	YEAR 71 SEC 22	CS SITE	NCHAN 1
NREC 47 LENGTH 3003	ID 37 SP 10	млитн 3 нопр 7	DAY 23 MINUTE 9	YEAR 71 SEC 22	SITE C3	NCHAN 1
NREC 47 LENGTH 3003	10 37 SP 10	MONTH 3 HOUR 7	DAY 23 MINHTE 9	YEAR 71 SEC 22		
NREC 47 LENGTH 3003	IP 37 SP 10	MONTH 3 HOUR 7	DAY 23 WINHIF 9	YEAR 71 SEC 22	SITE D1	NCHAN 1
NREC 47 LENGTH 3003	In 37 SP 10	MONTH 3 HOUR 7	DAY 23 MINHTE 9	YEAR 71 SFC 22	SITE D2	NCHAN 1
MREC 47 LENGTH 3003	10 37 5P 10	MONTH 3 HOUR 7	044 23 MTNUTE 9	YEAR 71 SEC 22	SITE D3	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	D4	1
	SP	HOUR	MINUTE	SEC		
3003	1 0	7	9	55		
NREC,	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	3.7	3	23	71	Ε1	1
LENGTH		HOUR	MINUTE			
3003	10	7	Q	55		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23		F2	1
LENGTH	SP		MINUTE	SEC		
3003	10	7	9	55		
NREC		MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3003	10	7	9	5.5		
NREC	ΙD	момтн	DAY	YEAR	SITE	NCHAN
47	37	3	23 MINUTE	71	F4	1
LENGTH	SP	HOUR	WING F	3 E C		
3003	1 0	7	Ġ	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23 MINUTE	7 1	F١	1
LENGTH		HOUR		SFC		
3003	10	7	9	55		
NREC	ΙD	MONTH 3	DAY	YEAR	SITE	NCHAN
47	37	3	23	7.1	F2	1
			MINUTE			
3003	1 0	7	q	55		
NREC	ΙĐ	MONTH	DAY 23	YEAR	SITE	NCHAN
47	3.7	3			F3	1
LENGTH	SP	HOUR	MINUTE			
3003	10	7	9	\$5		
MREC	Ιŋ	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	7 1	F4	1
LENGTH	SR	HOUR	MINHTE	SFC		
3003	10	7	9	55		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	5	7 1	0 A	1
LENGTH	SP	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	3,8	7	2	71	B.	1
LENGTH	SP	H06.8	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	82	1
LENGTH	SP	HOUR	WIN ILE	SFC		
3004	10	17	8	49		

NREC		MUNTH	DAY	YEAR		NCHAN
47 LENGTH	38 SR	7 HOUR	2 MINHTF	71 SEC	B3	1
3004	10	17	MINUTE B	49		
. • • • • • • • • • • • • • • • • • • •	10	• •	· ·	7,		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	5	71	84	1
LENGTH	SR		MINUTE	SFC		
3004	1 ()	17	8	49		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	C 1	1
LENGTH	SP		MINUTE	SFC		
3004	10	1 7	8	49		
NREC	ID	MONTH	DAY	VEAL	SITE	NCHAN
47	38	7	2		C 5	
LENGTH	SR	HOUR	MINUTE	SEC		_
3004	10	17	8	49		
NREC	ın	MONTH	DAY	YEAR	CITE	NCHAN
47	7 A	7	2	71	C3	1
LENGTH	SR	ноця	MINNITE	SFC		•
3004	10		8	49		
NOEC	7.0	MONTH	D.A.V	V.C. A.D.	07.71	SICHAAI
NREC 47	ID 38	MONTH 7	2	YEAR 71	SITE C4	NCHAN 1
LENGTH	SF		MINNTE	=		•
3004	10	17	8	40		
	• •				4.25	
NREC 47	1D 38	MONTH 7	PAY S	YEAR	SITE D1	
LENGTH	SR		MINHTE	71 SFC	"1	1
3004	10	17	8	49		
MREC 47	IN 38	ж∩NТН 7	Y A CI	7E AR 71	SITE D2	
LENGTH	SP	HUUB ,	MINHTE	SEC	υZ	i
3004	10	17	8	49		
MREC		MONTH		YEAR		NCHAN
47 LENGTH	3.8 SP	7 HOUR	S MINUTE	71 SFC	0.3	1
3004	10	17	8	49		
30			•			
MREC	IU	MONTH	ΟVĀ	YEAR	SITE	
47	38	7	2	71	04	1
LENGTH 3004	SR 10	40UR 17	MINUTE 8	SFC 49		
3 4 7 4	1 "			٠,		
NREC	In	MUNTH	DVA	YEAR	SITE	
47	38	1 1000	2	71	F1	1
LENGTH 3004	SP 10	HOUR 17	MINUTE B	SFC 49		
J Q 1/1 -	1 17	1 •	,,	- 7		
MREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	£ 5	1
LENGTH	SP	HOUR	MINHTE	SFC		
3004	10	17	8	49		

NREC 47 LFNGTH 3004	ID 38 SR 10	MONTH 7 HUUR 17	YAU 2 TUNITE 8	YEAR 71 SFC 49	SITE E3	NCHAN 1
NREC 47 LENGTH 3004	10 38 SR 10	MONTH 7 400R 17	YAD S STUNTM 8	YEAR 71 SEC 49	SITE F4	NCHAN 1
NREC 47 LENGTH 3004	ID 38 SR 10	MONTH 7 HOUR 17	DAY 3 MINUTE 8	YEAR 71 SFC 49	SITE F1	NCHAN 1
NREC 47 LENGTH 3004	IP 38 58 10	MONTH 7 HOUR 17	DAY BTUNTE B	YEAR 71 SFC 49	SITE F2	NCHAN 1
NREC 47 LENGTH 3004	ID 38 SR 10	MONTH 7 HOUR 17	YAG 2 atunim 8	YEAR 71 SEC 49	SITE F3	NCHAN 1
NREC 47 LENGTH 3004	ID 38 SR 10	MONTH 7 HOUR 17	DAY 2 MINUTE 8	YEAR 71 SEC 49	SITE F4	NCHAN 1
NREC 47 LENGTH 3005	ID 39 SP 10	MONTH 7 HOUR 17	DAY 10 MINUTE 9	YEAR 71 SFC 5	SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 39 SR 10	MONTH 7 HOUR 17	DAY 10 MINUTE 9	YEAR 71 SEC 5	SITE B1	NCHAN 1
NREC 47 LENGTH 3005	ID 39 SR 10	MONTH 7 HOUR 17	DAY 10 MINUTE 9	YEAR 71 SFC 5	SITE B2	NCHAN 1
NREC 47 LENGTH 3005	ID 39 SP 10	MONTH 7 HOUK 17	DAY 10 MINUTE 9	YEAR 71 SFC 5	SITE R3	NCHAN 1
NREC 47 LENGTH 3005	10 39 58 10	MONTH 7 HOUR 17	DAY 10 MINUTE 9	YEAR 71 SEC 5	SITE 84	NCHAN 1
MREC 47 LENGIH 3005	ID 39 SR 10	момтн 7 ноџе 17	DAY 10 MINUTE	YEAR 71 SEC 5	SITE C1	NCHAN 1

NRFC 47 LENGTH 3005	ID 39 SP 10	MONTH 7 HOUR 17	DAY 10 MINHTE 9	YEAR 71 SEC 5	SITE C2	NCHAN 1
NREC 47 LENGTH 3005	ID 39 SP 10	MONTH 7 HOUR 17	DAY 10 MINHTF 9	YEAR 71 SFC 5	SITE C3	NCHAN 1
NREC 47 LENGTH 3005	IP 39 58 10	MONTH 7 POUR 17	DAY 10 MINUTE 9	YEAR 71 SFC 5	SITE C4	NCHAN 1
NREC 47 LENGTH 3005	ID 39 50 10	#0NTH 7 #00R 17	0AY 10 MINUTE 9	YEAR 71 SFC 5	SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 30 50 10	¥047 € 7 401 € 17	OAY 10 VINUTE 9	YEAR 71 SEC 5	SITE	NCHAN 1
NREC 47 LENGTH 3005	IP 30 58 10	МОЧТН 7 НОСВ 17	♪ΛΥ 10 ИТХИТЕ Э	YEAR 71 SFC 5	SITE D3	NCHAN 1
MPEU 47 LENGTH 3005	10 39 5P 10	МОМТН 7 НОПЯ 17	DAY 10 MINHIF	YEAR 71 SEC 5	SITE D4	NCHAN 1
NREC 47 LENGTH 3005	IP 39 88 10	MONTH 7 HOUR 17	1.0	YEAR 71 SFC	SITE F1	NCHAN 1
NREC 47 LENGTH 3005	In 29 SR 10	МОЛТН 7 НОИК 17	DAY 10 MINUTE 9	YEAR 71 SFC 5	SITE F2	NCHAN 1
NREC 47 LENGTH 3005	ID 39 30 10	MONTH 7 HOUR 17	DAY	YEAR 71 SFC 5	SITE E3	NCHAN 1
NREC 47 LENGTH 3005	10 39 5P 10	MONTH 7 HOUR 17	() A Y 1 U MT WITE 9	YEAR 71 SFC 5	SITE F4	NCHAN 1
NRFC 47 LFNSTH 3005	IP 	90NTH 7 HOUR 17	DAY 10 MINUTE	YEAR 71 SEC 5	SITE F1	NCHAN 1

LENGTH

3002

SP

1.0

HORB

1 1

MINHIE

SFC

32

ID NREC MONTH DAY YEAR SITE NCHAN 47 39 7 10 71 F2 MINUTE LENGTH SR ноик SEC 1 7 9 3005 1.0 MONTH NREC ID DAY YEAR SITE NCHAN 39 7 71 F 3 47 1.0 LENGIH SR HOUR MINUTE SFC 17 9 3005 10 DAY MONTH YEAR SITE NCHAN NREC ΙD 7 47 39 10 71 F4 1 LENGTH SR HOUR MINHIF SEC 1.7 3005 10 NREC ID MONTH DAY YEAR SITE NCHAN 71 40 Δ0 1 47 19 SR MINHTE HOUR SFC LENGTH 1.1 9 3002 32 10 DΑY ID NREC MONTH YEAR NCHAN SITE 9 19 7 1 47 40 1 81 MINUTE LENGTH SP HOUR SEC 1.1 9 3002 1.0 32 ID YEAR NREC MONTH DAY SITE NCHAN 9 47 40 19 71 B 2 1 LENGTH S HOUR MINUTE SEC 3002 10 1.1 9 32 ΠΑΥ 19 YEAR MREC ID HTMOM SITE NCHAN 9 7 1 47 4.0 B 3 1 LENGTH SP HOUR MINHIE SEC 1 1 3002 1 U 9 ID HTMOM YEAR NREC DAY SITE NCHAN 9 P.4 47 40 19 71 LENGTH SP HOUR MINUTE SEC 9 300c 10 1 1 32 DAY NREC ID MONTH YEAR SITE NCHAN Q 19 C 1 47 40 7 1 LENGTH SP HOUR MINUTE SEC 3002 10 1.1 9 32 DAY ID MONTH NREC YEAR SITE NCHAN 7 1 C 2 9 19 47 40 1 MINUTE LENGIH SP HOUR SEC 3002 10 11 32 DAY 19 ID MONTH YEAR SITE NREC NCHAN 7 1 9 47 40 0.3 1 SP HOUR MINUTE LENGTH SEC Q 3002 1 1 ID WOWIH 19 19 MREC Y E V R SITE NCHAN Q 71 47 40 C 4 1

NREC 47	ID 40	HTNOM	DAY	YEAR 71	SITE D1	NCHAN 1
LENGTH 3002	5P 10	HO11R	MINUTE 9	SEC 32	01	1
NREC 47	10 40	MONTH 9	DAY 19	YEAR 71	SITE D2	NCHAN 1
LENGTH 3002	SR 10	HOUR 11	MTNUTE 9	SFC 32	02	•
NREC 47	ID 40	MONTH 9	DAY 19	YEAR 71	SITE	NCHAN 1
LENGTH 3002	SR 10	HOUR 11	MINUTE 9	SEC 32	0,0	•
NREC 47	1D 40	HTMOM 9	04Y	YEAR 71	SITE	
LENGTH 3002	SP 10	HOUR 11	MINUTE 9	SFC 32	D4	1
NREC 47	10 40	HTMNM	DAY 19	YE A R 71	SITE F1	
LENGTH 3002	5R 10	HOUR 11	MINUTE	SEC	£.1	1
NREC 47	10	HTNOM	DAY 19	YEAR 71	SITE E2	
LENGTH 3002	SR 10	HOUR	MINUTE 9	SFC 32	г. с	1
NREC 47	40	MONTH 9	DAY 19	YEAR 71	SITE	_
LENGTH 3002	S₽ 10	ноия 11	MINUTE	SEC 32	F3	1
MREC	10	MONTH	DAY	YEAR	SITE	
47 LEMGTH 3002	40 SR 10	HOUR 11	MINUTE 9	71 SEC 32	E 4	1
MREC		HTMNM 9	DAY			NCHAN
47 LENGTH 3002	40 SR 10	HOUR 11	MINUTE 9	71 SFC 32	Fí	1
NRFC 47	In	HTMNM 9	DAY	YEAR	SITE	NCHAN
LENGTH	SP	HOUR	19 MINHTE	71 SFC	F2	1
3002	10	11	9	32		_
NREC 47	40	HT1110M 9	DAY 19	YEAR 71	517E F3	NCHAN 1
LENGTH 3002	50 10	401'R 11	MINUTE 9	SEC 32		
NREC	Ιņ	мпитн	DAY	YEAR	SITE	NCHAN
47 LENGTH	40 SP	9 9	19 MINHTE	71 850	F4	1
3005	10	HOUR 11	MINITE Q	SFC 32		

NREC	ΙÙ	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	A 0	1
LENGTH			MINUTE			
3004	10	10	9	15		
NREC	ID	монтн	DAY	YEAR	SITE	NCHAN
47	41	10	4	7 1	81	1
LENGTH	SR		MINUTE	SEC		
3004	10	10	9	15		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	8 S	1
LENGTH	SP		MINUTE			
3004	10	10	9	15		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	В3	1
LENGTH			MINUTE			
3004	10	10	9	15		
NREC	10	MONTH	DAY	YE A R	SITE	NCHAN
47	41	10	4	7 1	84	1
LENGTH	SP		MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	C 1	1
LENGTH	SP		MINUTE	SFC		
3004	10	10	Q	15		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4 MINUTE		۲٦	1
LENGTH	SF	HOUR				
3004	1.0	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	1.0	4 MINUTE	71	C 3	1
LENGTH						
3004	10	10	9	15		
MREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
	4.1		4		C 4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1 0	9	15		
NREC	ID	HTKOM	DAY	YEAR		NCHAN
47	41	10	4	71	D 1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	7 1	0.5	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
MREC	ID	MONTH	DAY	YEAR	SITE	NEHAN
47	41	10	4	71	03	1
LENGTH	SP	HOHB	MINUTE	SFC		
3004	10	10	Q	15		

NREC 47 Length 3004	ID 41 5R 10		DAY 4 MINUTE 9	YEAR 71 SEC 15	SITE D4	NCHAN 1
NREC 47 Length 3004	41	MONTH 10 HOUR 10	DAY 4 MINUTE 9	YEAR 71 SEC 15	SITE	NCHAN 1
NREC 47 LENGTH 3004	41	MONTH 10 HOUR 10	DAY 4 MINUTE 9	YEAR 71 SEC 15	SITE E2	NCHAN 1
NREC 47 LENGTH 3004	41	10	DAY 4 MINUTE 9	71	SITE F3	NCHAN 1
NREC 47 LENGTH 3004	ID 41 5R 10	10	DAY 4 MINUTE 9	YEAR 71 SFC 15	SITE E4	NCHAN 1
NREC 47 LENGTH 3004	(n 41 5° 10	10	DAY 4 MINUTE 9	YEAR 71 SFC 15	SITE F1	NCHAN 1
NREC 47 LENGTH 3004	10 41 SP 10	MONTH 10 HOUR 10	DAY 4 MINUTE 9	YEAR 71 SEC 15	SITE F2	NCHAN 1
NREC 47 LENGTH 3004	4.1	MONTH 10 HOUR 10	DAY 4 MINUTE 9	YEAR 71 SEC 15	SITE F3	NCHAN 1
NREC 47 LENGTH 3004		MONTH 10 HOUR 10	DAY 4 MINUTE 9	YEAR 71 SFC 15	SITE F4	NCHAN 1
NREC 47 LENGTH 3002	ID 42 58 10	MONTH 10 Hour 5	DAY 22 MINUTE 10	YEAR 71 SFC 40	SITE	NCHAN 1
NREC 47 LENGTH 3002	10 42 5R 10	MONTH 10 HOUR 5	PAY 72 TIUNTM 01	YEAR 71 SEC 40	SITE	NCHAN 1
NREC 47 LENGTH 3002	1D 42 SP 10	ИПЛТН 10 НОСР 5	DAY 72 MINUTE 10	YEAR 71 SEC 40	SITE 82	NCHAN 1

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NREC 47 Length 3002	ID 42 SR 10	MONTH 10 Hour 5	DAY 22 MINUTE 10	YEAR 71 SEC 40	SITE B3	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	MONTH 10 HOUR 5	DAY 22 Minute 10	YEAR 71 SEC 40	SITE B4	NCHAN 1
NREC 47 LENGTH 3002	42	MONTH 10 HOUR 5	DAY DAY	71	SITE C1	NCHAN 1
NREC 47 LENGTH 3002	42		DAY 22 MINUIF 10	71	SITE C2	NCHAN 1
NREC 47 LENGTH 3002	ID 42 5R 10	10	DAY 22 MINUTE 10	7 1	SITE C3	NCHAN 1
NREC 47 LENGIH 3002	10 42 SR 10	10	DAY 22 MINUTE 10	YEAR 71 SEC 40	SITE C4	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SP 10	10	DAY 22 MINUTE 10	YEAR 71 SFC 40	SITE	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	10	DAY 22 MINUTE 10	YEAR 71 SEC 40	DS SITE	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10		DAY 22 MINUTE 10			NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	MONTH 10 HOUR 5	DAY 22 TUNITE 10	YEAR 71 SEC 40	SITE D4	NCHAN 1
NREC 47 LENGTH 3002	10 42 SR 10	MONTH 10 HOUR 5	DAY 22 MTNUTE 10	YEAR 71 SEC 40	SITE E1	NCHAN 1
NREC 47 Length 3002	10 42 58 10	MONTH 10 HOUR 5	DAY 22 MINUTE 10	YEAR 71 SEC 40	SITE E2	NCHAN 1

NREC 47 LENGTH 3002	10 42 SR 10	MONTH 10 HOUR 5	DAY 22 MINUTE 10	YEAR 71 SEC 40	SITE E3	NCHAN 1
NREC 47 LENGTH 3002	ID 42 58 10	MONTH 10 HOUR 5	DAY 25 MINHIF DAY	YEAR 71 SEC 40	SITE E4	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	MONTH 10 HOUR 5	DAY 22 MINUTE 10	YEAR 71 SFC 40	SITE F1	NCHAN 1
NREC 4/ LENGTH 3002	10 42 SR 10	MONTH 10 HOUR 5	DAY 22 MINUTE 10	YEAR 71 SEC 40	SITE F2	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	MONTH 10 HOUR 5	10 25 Day	YEAR 71 SFC 40	SITE F3	NCHAN 1
NREC 47 LENGTH 3002	ID 42 SR 10	MONTH 10 HOLIR 5	D10 PAY DAY	YEAR 71 SEC 40	SITE F4	NCHAN 1
NREC 47 Length 3004	ID 43 SR 10	MONTH 12 HOUR 7	DAY 22 MINUTE 10	YEAR 71 SEC 27	SITE	NCHAN 1
MPEC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 HOUR 7	DAY 22 MTNUTE 10	YEAR 71 SEC 27	SITE B1	NCHAN 1
NREC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 Hour 7	10 SS DAY	YEAR 71 SFC 27	SITE B2	NCHAN 1
NRFC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 Hour 7	DAY 22 MINUTE 10	YEAR 71 SFC 27	SITE B3	NCHAN 1
NREC 47 LENGTH 3004	10 43 SP 10	MONTH 12 HOUR 7	DAY 25 MINNIF 0 t	YEAR 71 SEC 27	SITE R4	NCHAN 1
NHEC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 HOUR 7	DAY 22 MINUTE 10	YEAR 71 SFC 27	SITE C1	NCHAN 1

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NREC 47	ID 43	HT/10M 12	SS DAA	YEAR 71	SITE C2	NCHAN 1
LENGTH	SR	HOUR	MINUTE	SEC	C Z	1
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	25	71	C 3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	C 4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	7	10	27		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	52	71	0.1	1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SFC 27		
3004	10	,	10	<i>2</i> 1		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12 Hour	<u>22</u>	71	0.2	1
LENGTH 3004	SR 10	7	MINUTE 10	SEC 27		
30, 4	. •	•	10			
NREC	ID_	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	43 SR	12 Hour	22 MINUTE	71 SEC	r3	1
3004	10	7	10	27		
3,	• •	•	, ,			
NREC	Ιņ	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	43 SP	1.2 HOUR	22 MINUTE	71 SFC	D4	1
3004	10	7 TOUR	10	27		
•	• •	·	. •			
NREC	10	MUNTH	DΔY	YEAR	SITE	NCHAN
47 LENGTH	43 SP	12 HOUR	22 HINUTE	71 SEC	El	1
3004	10	7	10	27		
		·	• "			
NREC	ID	MONTH	DAY	YEAR		NCHAN
47 LENGTH	43 SR	12 HOUR	22 MINUTE	71 SFC	E 2	1
3004	10	7	10	27		
		•	• •			
NREC	ID	HINON	DAY	YEAR	SITE	NCHAN
47 LENGTH	43 SP	12 HOUR	SS MINUTF	71 SEC	F 3	1
3004	10	7	10	27		
	• •	,	. •	,- ,		
NREC	I D	MONTH	DAY	YEAR	SITE	NCHAN
47 LENGTH	43 SR	12 HOUR	22 MINUTE	71 850	Ę4	1
3004	10	7	MTNUTE 10	SEC 27		
NREC	10	MONTH	DΑY	YEAR	SITE	NCHAN
47 LENGTH	43	12	22 MINUTE	71 8 5 C	F1	1
3004	SP 10	HOUR 7	10	SEC 27		
2004	. •	•		٠,		

NREC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 HOUR 7	DAY 22 MTNUTE 10	YEAR 71 SFC 27	SITE F2	NCHAN 1
NREC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 HOUR 7	55	YEAR 71 SEC 27	SITE F3	NCHAN 1
NREC 47 LENGTH 3004	ID 43 SR 10	MONTH 12 HOUR 7	DAY 22 MINUTE 10	71	SITE F4	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SR 10	MONTH 4 HOUR 6	1 1	72	SITE	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SR 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE B1	NCHAN 1
NREC 47 LENGIH 3002	IN 45 89 10	MONTH 4 HOUR , 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE R2	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SP 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE B3	NCHAN 1
NREC 47 LENGTH 3002	10 45 SR 10	MONTH 4 HUDR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE B4	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SR 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12			NCHAN 1
NREC 47 LENGTH 3002	1D 45 SR 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SR 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE C3	NCHAN 1
NREC 47 LENGTH 3002	ID 45 SP 10	MONTH 4 HOUR 6	DAY 11 MINUTE 12	YEAR 72 SEC 30	SITE C4	NCHAN 1

NREC	ID	MONTH	ĐAY	YEAR	SITE	NCHAN
47	45	4	1 1	72	D 1	1
LENGTH	SR	HOHR		SEC		
3002	10	6	12	30		
NREC	ID	MONTH		YEAR	SITE	NCHAN
47	45	4	11	72	0.5	1
LENGTH	SP	HOUR		SEC		
3002	10	6	12	30		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	03	1
LENGTH 3002	SR 10	HOUR				
3002	1 0	6	12	30		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	1 1	72	D4	1
LENGTH	SP	HOUR				
3002	10	6	12	30		
NREC	ID	MONTH	DAY		SITE	NCHAN
47	45	4	11	. 75	E1	1
LENGTH	SP		MINUTE	SEC		
3002	10	6	12	30		
NREC	10	MONTH	DAY		SITE	NCHAN
47	45	4	1 1	72	E 2	1
LENGTH	83	HOUR		SEC		
3002	1 0	6	12	30		
NREC	ΙŬ	MONTH		YEAR	SITE	
47	45	4	11	72	E 3	1
LENGTH 3002	SR 10	HOUR	MINUTE	SEC		
3002	10	ь	12	30		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	E 4	1
LENGIH		HOUR		SEC		
3002	10	6	12	30		
MREC	ID	MONTH	DAY			NCHAN
47		4		72	F1	1
LENGTH	SR	HOUR	MINUTE	3EC		
3002	1 0	6	12	30		
NREC	ΙC	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F2	1
LENGTH	SP	HOUR	MINUTE	SFC		
3002	10	6	12	30		
NREC	11	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3002	10	b	12	30		
NREC	IU	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	1.1	72	F4	1
LENGTH	SR	HOHR	MINUTE	SEC		
3002	10	6	12	30		

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NREC 47 Length 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SFC 3	SITE AO	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SP 10	7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE B1	NCHAN 1
NREC 47 LENGTH 3005	10 46 SP 10	MONTH 7 Hour 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE 82	NCHAN 1
NREC 47 LENGIH 3005	ID 46 SR 10	7 HOUR	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE B3	NCHAN 1
NRFC 47 LENGTH 3005	IP 46 SR 10	7	DAY 9 MINHTF 10	YEAR 72 SEC 3	SITE B4	NEHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SFC 3	SITE C1	NCHAN 1
NREC 47 LENGTH 3005	10 46 SR 10	MONTH 7 Hour 7	DAY 9 MTNUTE 10	YEAR 72 SEC 3	SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SP 10	MONTH 7 HOUR 7	DAY 9 MTNHTF 10	YEAR 72 SFC 3	SITE C3	NCHAN 1
NREC 47 LENGTH 3005		7	DAY 9 MINUTE 10			NCHAN 1
NREC 47 LENGTH 3005	10 46 SP 10	MONTH 7 Hour 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 46 58 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE D2	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SP 10	MONTH 7 Hour 7	DAY 9 MINUTE 10	YEAR 72 SFC 3	SITE 03	NCHAN 1

NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 Hour 7	DAY 9 Minute 10	YEAR 72 SEC 3	SITE D4	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE E1	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	E2 SITE	NCHAN 1
NREC 47 LENGTH 3005	1D 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SFC 3	SITE F3	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE E4	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SP 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE F1	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MTNIITE 10	YEAR 72 SFC 3	SITE F2	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SR 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SEC 3	SITE F3	NCHAN 1
NREC 47 LENGTH 3005	ID 46 SP 10	MONTH 7 HOUR 7	DAY 9 MINUTE 10	YEAR 72 SFC 3		
NRFC 47 LENGTH 3004	1D 47 SR 10	MONTH 8 HOUR 3	DAY 20 MINUTE 10	YEAR 72 SFC 20	SITE	NCHAN 1
NREC 47 LENGTH 3004	ID 47 SR 10	MONTH 8 HOUR 3	DAY 20 Miniife 10	YEAR 72 SEC 20	SITE B1	NCHAN 1
NREC 47 LENGTH 3004	ID 47 SR 10	MONTH 8 HOUR 3	DAY 20 MINUTE 10	YEAR 72 SEC 20	SITE B2	NCHAN 1

NREC	10	HTNOM	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	РZ	1
LENGTH	SP	HOUR				
3004	10	3	10	50		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	B 4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3004	10	3	10	50		
NREC	10	момтн	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	C 1	1
LENGTH			MINUTE			
3004	10	3	10	20		
NREC	10	MONTH		YEAR	SITE	NCHAN
47	47	8	20	72	C.5	1
LENGTH		HOUR	MINUTE			
3004	1 0	3	10	50		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	50	72	ū3	1
LENGTH			MINUTE	SFC		
3004	10	3	10	20		
NREC	10		DAY	YEAR	SITE	NEHAN
47	47	8	20	72	C 4	1
LENGTH	Sp		MINUTE			
3004	10	3	10	20		
NREC	_	нТипм	DAY		SITE	NCHAN
47	47	А	20	72	D1	1
LENGTH	SP		MINUTE	SEC		
3004	1 0	3	10	20		
NHEC	ID	MONTH			SITE	NCHAN
47	47	8	20 MINUTE	72 SEC 20	0.5	1
LENGTH	SR	4000		SEC		
3004	1 0	3	10	50		
NRFC	ΙL	нтипм	DAY	YEAR	SITE	NCHAN
47	47	н	2 0	72	n3	1
LENGTH	SR	яуон	MINHIF	SEC		
3004	10	3	10	20		
NREC	ID	MUNTH	DAY	YEAR	SITE	NCHAN
47	47	Ŗ	20	72	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	50		
MREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	A	20	72	E.1	1
LENGIH	SP	HOUR	MINUTE	SEC		
3004	10	3	10	50		
NREC	ΙD	MONTH	() A Y	YEAR	SITE	NCHAN
47	47	8	20	72	۴2	1
LENGTH	αg	ноця	MINUTE	SEC		
3004	10	3	1.9	50		

NREC 47 LFNGTH 3004	10 47 SR 10	MONTH 8 HOUR 3	DAY 20 MINUTE 10	YEAR 72 SFC 20	SITE E3	NCHAN 1
NREC 47 LENGTH 3004	ID 47 SR 10	MONTH 8 HOUR 3	DAY 20 MINUTE 10	YEAR 72 SFC 20	SITE F4	NCHAN 1
NREC 47 LENGTH 3004	10 47 58 10	MONTH 8 HOUR 3	DAY 20 MINHTF 10	YEAR 72 SEC 20	SITE F1	NCHAN 1
NREC 47 LENGTH 3004	10 47 5R 10	MONTH 8 HOUR 3	DAY 20 STUUTE 01	YEAR 72 SFC 20	SITE F2	NCHAN 1
NREC 47 LENGTH 3004	In 47 SP 10	MONTH 8 HUUR 3	DAY 20 MINUTE 10	YEAR 72 SFC 20	SITE F3	NCHAN 1
NREC 47 LENGTH 3004	10 47 38 10	MONTH 8 HOUR 3	DAY 20 MINUTF 10	YEAR 72 SFC 20	SITE F4	NCHAN 1
NREC 47 LENGIH 3003	10 48 50 10	MONTH 9 HOUR 7	OAY 4 MINHIF 8	YEAR 72 SFC 26	SITE	NCHAN 1
NREC 47 LENGTH 3003	IN 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE B1	NCHAN 1
MREC 47 LENGTH 3003	10 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SEC 20		NCHAN 1
NREC 47 LENGTH 3003	ID 48 5P 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE B3	NCHAN 1
NREC 47 LENGTH 3003	In 48 59 10	МПИТН 9 НОИК 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE 84	NCHAN 1
NRFC 47 LENGTH 3003	ID 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE	NCHAN 1

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NREC 47 LENGTH 3003	10 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	CS SITE	NCHAN 1
NREC 47 LENGTH 3003	ID 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SEC 26	SITE C3	NCHAN 1
NREC 47 LENGTH 3003	ID 48 SP 10	MONTH 9 HOUP 7	DAY 4 MINUTE 8	YEAR 72 SEC 26	SITE C4	NCHAN 1
NREC 47 LENGTH 3003	10 48 SP 10	МОМТН 9 НОПР 7	04Y 4 MYNUTF 8	YEAR 72 SEC 26	SITE D1	NCHAN 1
NREC 47 LENGTH 3003	10 48 39 10	MONTH 9 HOUR 7	DAY 4 MINHTE 8	YEAR 72 SEC 26	SITE D2	NCHAN 1
NREC 47 LENGTH 3003	ID 48 50 10	MONTH 9 HOUR 7	04Y 4 MINUTE 8	YEAR 72 SFC 26	SITE D3	NCHAN 1
NREC 47 LENGIH 3003	In 48 59 10	MONTH 9 HOUR 7	CAY 4 MINUTE 8	YEAR 72 SEC 26	SITE D4	NCHAN 1
NREC 47 LENGTH 3003	ID 48 SP 10	МОЛТН 9 ЧОСР 7	G MINULE 9 DVA	YEAR 72 SEC 26	SITE F1	NCHAN 1
NREC 47 LENGTH 3003	IP 48 58 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE F2	NCHAN 1
NREC 47 LENGTH 3003	10 48 5P 10	MONTH 9 HOUR 7	DAY 4 MINHTE 8	YEAR 72 SFC 26	SITE E3	NCHAN 1
NREC 47 LENGTH 3003	ID 48 52 10	MANTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE E4	NCHAN 1
NPFC 47 LENGTH 3003	10 48 48	MONTH 9 HULR 7	DAY 4 MINUTE H	YEAR 72 SEC 26	SITE F1	NCHAN 1

NREC 47 LENGTH 3003	ID 48 SP 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAP 72 SEC 26	SITE F2	NCHAN 1
NRFC 47 LENGTH 3003	ID 48 SR 10	MONTH 9 HOUR 7	DAY 4 MINUTE 8	YEAR 72 SFC 26	SITE F3	NCHAN 1
NREC 47 LENGTH 3003	ID 48 SR 10	MONTH 9 Hour 7	DAY 4 MINUTE 8	YEAR 72 SEC 26	SITE F4	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SR 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE	NCHAN 1
NREC 47 LENGTH 3001	10 49 SR 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SFC 9	SITE B1	NCHAN 1
NRFC 47 LENGTH 3001	ID 49 SR 10	MONTH 9 HOUR 9	PAY 15 HINUTE 01	YEAR 72 SEC 9	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	ID 49 58 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SFC 9	SITE B3	NCHAN 1
NREC 47 LENGIH 3001	IP 49 SR 10	MONTH 9 Hour 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE R4	NCHAN 1
NREC 47 LENGTH 3001	In 49 58 10	MONTH 9 HOUR 9	CAY 21 MINUTE 10	YEAR 72 SEC 9	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	10 10	HTMOM 9 900H 0	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SR 10	MONTH 9 H()UR 9	DAY 21 MINUTE 10	YEAR 72 SFC 9	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	IN 49 SP 10	MONTH 9 HUUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE C4	NCHAN 1

NREC 47 LENGTH 3001	IP 49 SR 10	MONTH 9 HUUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SR 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	D2	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SR 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE n3	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SP 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SFC 9	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	In 49 SR 10	MONTH 9 HOUR 9	DAY 21 MTNUTE 10	YEAR 72 SFC 9	SITE F1	NCHAN 1
NRFC 47 LENGTH 3001	ID 49 SP 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SFC 9	SITE F2	NCHAN 1
MREC 47 LENGTH 3001	ID 49 SP 10	НТИОМ Р ЯПОН Р	DAY 21 MTNUTE 10	YEAR 72 SEC 9	SITE E3	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SP 10	MONTH 9 HOUR 9	DAY 21 MINUTE 10	YEAR 72 SEC 9	SITE E4	NCHAN 1
NREC 47 LENGTH 3001	ID 49 SR 10		DAY 21 MINUTE 10			NCHAN 1
NREC 47 LENGTH 3001	IN 49 SR 10	MONTH 9 HOUR 9	DAY 21 MINHIF 10	YEAR 72 SEC 9	SITE F2	NCHAN 1
NREC 47 LENGIH 3001	10 49 58 10	MONTH 9 HOUR 9	DAY 21 MINHTE 10	YEAR 72 SFC 9	SITE F3	NCHAN 1
NREC 47 LENGTH 3001	ID 49 5P 10	МПМТН 9 НОГР 9	DAY 21 Minute 10	YEAR 72 SEC 9	SITE	NCHAN 1

NREC 47 Length 3005	In 50 SR 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE	NCHAN 1
NREC 47 LENGTH 3005	1D 50 SR 10	10	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE B1	NCHAN 1
NREC 47 LENGTH 3005	IP 50 SR 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE 82	
NREC 47 LENGTH 3005	ID 50 SR 10	MONTH 10 HOUR 9	-	YEAR 72 SEC 29	SITE B3	
NREC 47 LENGTH 3005	IN 50 SR 10	MONTH 10 HOUR 9	3	YEAR 72 SFC 29	SITE B4	NCHAN 1
NREC 47 LENGTH 3005	5.0	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SFC 29	SITE C1	NCHAN 1
NREC 47 LENGTH 3005	50	MONTH 10 HOUR 9	3	72	CS SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SP 10	MONTH 10 HOUR 9	3	YEAR 72 SEC 29	SITE C3	NCHAN 1
NREC 47 LENGTH 3005	19 50 SR 10		DAY 3 MINUTE 10		SITË C4	
NRFC 47 LENGTH 3005	ID 50 SP 10	MONTH 10 HOUR 9	DAY 3 MINHTF 10	YEAR 72 SEC 29	SITE	NCHAN 1
NREC 47 LENGTH 3005	ID 50 58 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE D2	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SP 10	МОМТН 10 НОПР	DAY 3 MINUTE	YEAR 72 SEC 29	SITE D3	NCHAN 1

NREC 47 LENGTH 3005	ID 50 SR 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE D4	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SP 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE E1	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SR 10	MONTH 10 HOUR 9	DAY 3 MTNUTE 10	YEAR 72 SEC 29	SITE F2	NCHAN 1
NREC 47 LENGTH 3005	10 50 5P 10	MONTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE E3	NCHAN 1
NREC 47 LENGTH 3005	10 50 SR 10	MONTH 10 HOUR 9	0 4 Y 3 MINHTF 10	YEAR 72 SEC 29	SITE E4	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SR 10	MONTH 10 HOUR 9	DAY 3 Minute 10	YEAR 72 SFC 29	SITE F1	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SR 10	MONTH 10 HOUR 9	DAY 3 MINHIF 10	YEAR 72 SFC 29	SITE F2	NCHAN 1
NREC 47 LENGTH 3005	ID 50 SR 10	MPNTH 10 HOUR 9	DAY 3 MINUTE 10	YEAR 72 SEC 29	SITE F3	NCHAN 1
NREC 47 LENGTH 3005	ID 50 5P 10	HTUOM 01 RUOH P	04Y 3 41NHTF 10	YEAR 72 SEC 29	SITE F4	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 19	YEAR 72 SFC 19	SITE	NCHAN 1
NREC 47 LENGTH 3001	IP 51 5R 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID 51 58 10	MONTH 11 HOHP 10	DAY 24 MINHTE 10	YEAR 72 SFC 19	SITE SA	NCHAN 1

NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE B3	NCHAN 1
NREC 47 LENGTH 3001	10 51 5R 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SP 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	10 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 40UR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 51 5P 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY '24 MINUTE 10	YEAR 72 SFC 19	SITE D2	NCHAN 1
MREC 47 LENGTH 3001	IO 51 3R 10	MONTH 11 HOUR 10	24	YEAR 72 SEC 19		NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 51 3R 10	MONTH 11 HOUR 10	DAY 24 Minute 10	YEAR 72 SFC 19	SITE F1	NCHAN 1
NREC 47 LENGTH 3001	ID 51 5R 10	MONTH 11 HOUR 10	DAY 24 MINHTE 10	YEAR 72 SFC 19	SITE F2	NCHAN 1

NRFC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE E3	NCHAN 1
NREC 47 LENGTH 3001	ID 51 SR 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE F4	NCHAN 1
NREC 47 LENGTH 3001	10 51 5R 10	MONTH 11 HUUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE F1	NCHAN 1
NREC 47 LENGTH 3001	IN 51 5R 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SEC 19	SITE F2	NCHAN 1
NREC 47 LENGTH 3001	In 51 52 10	MANTH 11 HOHR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE F3	NCHAN 1
NREC 47 LENGTH 3J01	IP 51 58 10	MONTH 11 HOUR 10	DAY 24 MINUTE 10	YEAR 72 SFC 19	SITE F4	NCHAN 1
NREC 47 LENGTH 3001	10 53 SR 10	MONTH 8 HOUR 2	04Y 15 MINUTE 11	YEAR 73 SFC 5	SITE	NCHAN 1
MREC 47 LENGTH 3001	10 53 50 10	MONTH 8 HOUR 2	DAY 15 MINUTE 11	YEAR 73 SEC 5	SITE R1	NCHAN 1
NHEC 47 LENGTH 3001	10 53 58 10	MONTH 8 HOUR 2	DAY 15 MINHTF 11	YEAR 73 SFC 5	SITE 82	NCHAN 1
NREC 47 LENGTH 3001	IO 53 SP 10	MOUTH 8 HOUR 2	DAY 15 MTHUTE 11	YEAR 73 SEC 5	SITE B3	NCHAN 1
NPEC 47 LENGTH 3001	10 53 58 10	MONTH 8 HOUR 2	DAY 15 MINUTE 11	YEAR 73 SFC 5	SITE	NCHAN 1
MREC 47 LENGTH 3001	10 53 SP 10	MUNTH 8 HÜÜK 2	DAY 15 MTMUTE 11	YEAR 73 SEC 5	SITE	NCHAN 1

LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SP HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SP HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 3004 10 3 10	YEAR 73 SFC YEAR 73 SEC YEAR 73 SEC YEAR 73 SFC YEAR 73 SFC YEAR 73 SEC	SITE C3 SITE C4 SITE D1 SITE D2	NCHAN NCHAN NCHAN NCHAN NCHAN
NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SP HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11	YEAR 73 SEC 5 YEAR 73 SEC 5 YEAR 73 SEC 5 YEAR 73 SEC 5	SITE C1 SITE D2 SITE	NCHAN 1 NCHAN 1
NEC ID MONTH DAY	SEC 5 YEAR 73 SEC 5 YEAR 73 SEC 5 YEAR 73 SEC 5	SITE C4 SITE D2 SITE	NCHAN 1 NCHAN 1 NCHAN
LENGIH SP HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 51 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGIH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 28 LENGIH SR HOUR MINUTE 3004 10 3 10	73 SEC 5 YEAR 73 SFC 5 YEAR 73 SEC 5	SITE D2	NCHAN 1 NCHAN 1
LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 53 8 15 LFNGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY LENGTH SR HOUR MINUTE 3004 10 3 10	73 SFC 5 YEAR 73 SEC 5 YEAR 73	SITE D2	NCHAN
15	73 SEC 5 YEAR 73	D2 SITE	1
47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 MREC ID MONTH DAY 47 53 8 15 LENGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 MREC ID MONTH DAY 47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY NREC ID MONTH DAY	73		
47 53 8 15 LFNGTH SR HOUR MINUTE 3001 10 2 11 NREC ID MONTH DAY 47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY NREC ID MONTH DAY	5	(,)	NCHAN 1
47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY 47 54 8 28 LENGIH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY	YEAR 73 SEC 5	SITE D4	NCHAN 1
47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10 NREC ID MONTH DAY	YEAR 73 SEC 27	SITE	NCHAN 1
	YEAR 73 SEC 27	SITE B1	NCHAN 1
47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10	YEAR 73 SFC 27	SITE B2	NCHAN 1
NREC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10	YEAR 73 SFC 27	SITE R3	NCHAN 1
NRFC ID MONTH DAY 47 54 8 28 LENGTH SR HOUR MINUTE 3004 10 3 10		SITE 84	NCHAN 1

NREC 47	ID 54	MONTH 8	YAQ 85	YEAR 73	SITE	NCHAN 1
LENGTH 3004	SR 10	HOTTR 3	MINUTE 10	SEC 27		
NREC 47	ID 54	MTMUM 8	Y A C 8 S	YEAR 73	SITE C2	NCHAN 1
LENGTH 3004	SP 10	HOUR 3	MINUTE 10	SFC 27		
NREC 47	ID 54	MONTH 8	Y A C 8 S	YEAR 73	SITE C3	NCHAN 1
LENGTH 3004	SR 10	HOUR 3		SEC 27		•
NREC 47	ID 54	MTMOM 8	DAY 28	YEAR 73	SITE C4	NCHAN 1
LENGTH 3004	SP 10	HOUR 3	MINUTE 10		-	•
NREC 47	10 54	нтилм 8	DAY 85	YEAR 73	SITE D1	NCHAN 1
LENGTH 3004	SP 10		MINUTE 10	SEC 27	ur ş	•
NRFC	IU	MONTH		YEAR	SITE	NCHAN
47	54	8	28	73	20	1
LENGTH 3004	S P 10	HOUR 3	MINUTE 10	SEC 27		
NREC	10	MONTH	DAY	YEAR	SITE	_
47 LENGTH	54 SP	8 HOUR	28 MINUTE	73 SEC	D3	:
3004	10	3	10	27		
NREC 47	1D 54	HTMMM R	PAY 85	YEAR 73	SITE 04	NCHAN 1
LENGTH	SR		MINUTE	SEC	.,,	•
3004	1 0	3	10	27		
NREC	ΙD	MONTH		YEAR		NCHAN
47 LENGTH	55 SP	HOUR	19 MINUTE	73 SEC	40	1
3004	10	3	10	51		
NREC 47	ID	HTUOM	DAY 19	YEAR	SITE	NCHAN
LENGTH	55 SR	HOUR	MIMULE	73 SFC	81	1
3004	10	3	10	51		
NREC 47	10 55	MONTH	DAY	YE AR 73	SITE P2	NCHAN 1
LENGTH	SR	нопя	MINUTE	SFC	1.6	•
3004	10	3	1 0	51		
NREC	ΙĎ	MONTH	DAY	YEAR	SITE	NCHAN
47	5 5	Q	19	73	B 3	t
LENGTH 3004	S₽ 10	HQUR 3	MINUTE 10	8FC 51		
) () () 4	UV)	1 0	7 1		

NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SFC 51	SITE 84	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 Minute 10	YEAR 73 SEC 51	SITE C1	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTF 10	YEAR 73 SEC 51	SITE C2	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SEC 51	SITE C3	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SEC 51	SITE C4	NCHAN 1
NREC 47 LENGTH 3004	In 55 58 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SEC 51	SITE Di	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SEC 51	SITE D2	NCHAN 1
NREC 47 LENGTH 3004	ID 55 SP 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SEC 51	SITE D3	NCHAN 1
NREC 47 LENGTH 3004	IP 55 SR 10	MONTH 9 HOUR 3	DAY 19 MINUTE 10	YEAR 73 SFC 51	SITE D4	NCHAN 1
NREC 47 LENGTH 3005	In 56 SP 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE	NCHAN 1
NREC 47 LENGTH 3005	IN 56 SP 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE 81	NCHAN 1
NREC 47 LENGTH 3005	10 56 58 10	MONTH 9 40UR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE B2	NCHAN 1

NREC 47 LENGTH 3005	1D 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE B3	NCHAN 1
NREC 47 LENGTH 3005	ID 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SFC 21	SITE B4	NCHAN 1
NREC 47 LENGTH 3005	ID 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SFC 21	SITE C1	NCHAN 1
NREC 47 LENGTH 3005	ID 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE C2	NCHAN 1
NREC 47 LENGIH 3005	10 56 58 10	MONTH a HOUR 7	DAY 27 MINUTE 8	YEAR 73 SFC 21	SITE C3	NCHAN 1
NREC 47 LENGTH 3005	ID 50 5P 10	MONTH 9 40UR 7	DAY 27 MTNUTE 8	YEAR 73 SEC 21	SITE C4	NCHAN 1
NREC 47 LENGTH 3005	In 56 SR 10	МПЛТН 9 НОИР 7	DAY 27 MINUTE 8	YEAR 73 SFC 21	SITE D1	NCHAN 1
NREC 47 LENGTH 3005	ID 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SFC 21	DS SITE	NCHAN 1
NREC 47 LENGTH 3005			DAY 27 Minute 8			
NREE 47 LENGTH 3005	ID 56 SR 10	MONTH 9 HOUR 7	DAY 27 MINUTE 8	YEAR 73 SEC 21	SITE D4	NCHAN 1
NREC 47 LENGTH 3004	10 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SEC	SITE	NCHAN 1
NREC 47 LENGTH 3004	IO 57 SP 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SEC 4	SITE B1	NCHAN 1

NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SEC 4	SITE 82	NCHAN 1
NREC 47 LENGTH 3004	IO 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SFC 4	SITE B3	NCHAN 1
NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	73	SITE B4	NCHAN 1
NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SFC	SITE	NCHAN 1
NREC 47 LENGTH 3004	IO 57 SP 10	MONTH 1 U HOUR	DAY 26 MINUTE 10	YEAR 73 SEC 4	CS SITE	NEHAN 1
NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SEC 4	SITE C3	NCHAN 1
NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR	DAY 26 MINUTE 10	YEAR 73 SFC 4	SITE C4	NCHAN 1
MREC 47 LENGTH 3004	I N 57	MONTH 10 HOUR	56 DAY	YEAR 73 SEC 4	SITE D1	NCHAN 1
NREC	ID	момтн	DAY 26 MINUTE 10	YEAR		
NREC 47 LENGTH 3004	ID 57 SR 10	MONTH 10 HOUR 6	DAY 26 MINUTE 10	YEAR 73 SEC	SITE D3	NCHAN 1
NREC 47 LENGIH 3004	IO 57 SR 10	MONTH 10 HOUR	DAY 26 MINUTE 10	YEAR 73 SEC	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID 52 SP 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE	NCHAN 1

NREC 47 LENGTH 3001	ID 62 SR 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE 81	NCHAN 1
NREC 47 LENGTH 3001	ID 62 SR 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE B2	NCHAN 1
NREC 47 LENGTH 3001	IP 62 SP 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE 83	NCHAN 1
NREC 47 LENGTH 3001	ID 62 SR 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SFC 34	SITE 84	NCHAN 1
NREC 47 LENGTH 3001	ID 62 SR 10	MONTH 1 HOUR 5	DAY 30 Minute 7	YEAR 74 SEC 34	SITE	NCHAN 1
NREC 47 LENGTH 3001	In 62 SR 10	MONTH 1 HOUR 5	DAY 30 Minute 7	YEAR 74 SEC 34	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	IP 62 SR 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE C3	NCHAN 1
NRFC 47 LENGTH 3001	ID 62 58 10	мпутн 1 норя 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	10 62 8P 10	МПМТН 1 НОИК 5	DAY 30 MINHTE 7	YEAR 74 SEC 34	SITE D1	NCHAN 1
NREC 47 LFNGTH 3001	ID 62 SR 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SFC 34	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	In 62 SP 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SFC 34	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	10 62 3P 10	MONTH 1 HOUR 5	DAY 30 MINUTE 7	YEAR 74 SEC 34	SITE D4	NCHAN 1

NREC	10	MONTH	DAY	YEAR		NCHAN
47	63	1	25	74	A 0	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	1 0	4	7	30		
NREC	ID	HTAOM	DAY	YEAR	SITE	
47	63	1	25	74	B 1	i
LENGTH	SP	HOUR		SEC		
3001	1 0	4	7	30		
NREC	ID	MONTH	DAY			NCHAN
47	63	1	25	74	82	1
LENGTH	SR	HOUR 4	MINUTE			
3001	1 0	4	7	30		
NREC	ΙŊ	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	<i>2</i> 5	74	B3	1
LENGTH	SR	HUUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	10	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	84	1
LENGTH	SR	ноль	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	мпитн	DAY	YEAR	SITE	NCHAN
47	63	1 HOUR	2 5	74	C 1	1
LENGTH	SR	HOUR		SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NEHAN
47	63	1	25	74	C 2	1
LENGTH	SP	HOUR	MIMHIE	SEC		
3001	10	4	7	30		
NREC	ID	нтипм	D 🛭 A	YEAR	SITE	NCHAN
47	63	1	25	74	C 3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	= :	MONTH	DAY			
	63		25		C 4	1
LENGTH	3R	ноик	MINUTE	SFC		
3001	10	4	7	30		
NREC	IU_	MONTH	DAY	YEAR	SITE	
47	63	1	25	74	D 1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	/4	7	30		
NREC	10	MONTH	DAY	YEAR	SITE	
47	63	1	25	74	0.5	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	1.0	4	7	30		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	0.3	1
LEMGTH	5 P	HOUR	MINHIF	SFC		
3001	10	4	7	30		

NREC 47 LENGTH 3001	In 63 58 10	MONTH 1 HOUR 4	OAY 25 OAY	YEAR 74 SEC 30	SITE D4	NCHAN 1
NREC 36 LENGTH 2242	IP 54 58 10	MONTH 7 HUUR 6	DAY 8 MINUTE 10	YEAR 74 SFC 5	SITE	NCHAN 1
NREC 36 LENGTH 2242	ID 64 SP 10	МПЛТН 7 НОЦР 6	DAY A MINUTE 10	YEAR 74 SEC 5	SITE B1	NCHAN 1
NREC 36 LENGTH 2242	10 64 58 10	MONTH 7 HOUR 6	IO WIN, IE R DVA	YEAR 74 SEC 5	SITE R2	NCHAN 1
NREC 36 LENGTH 2242	IC 64 5R 10	MONTH 7 HOUR 6	AINÚILE Bai 10	YEAR 74 SEC 5	SITE ¤3	NCHAN 1
NREC 36 LENGTH 2242	ID 64 SR 10	MONTH 7 HOUR 6	DAY 8 MINHIF 10	YEAR 74 SEC 5	SITE Ru	NCHAN 1
NREC 36 LENGTH 2242	10 64 58 10	MONTH 7 HOUR 0	DAY 8 10	YEAR 74 SEC 5	SITE	NCHAN 1
NREC 30 LENGTH 2242	10 64 SP 10	MONTH 7 HOUR 6	DAY B MINUTE 10	YEAR 74 SEC 5	SITE	NCHAN 1
NREC 36 LENGTH 2242	In 64 5R 10	7	DAY 8 MINUTE 10	74		NCHAN 1
MREC 36 LEUGTH 2242	ID 64 5P 10	MONTH 7 HOUR 6	DAY B Minhte 10	YEAR 74 SEC 5	SITE Ç4	NCHAN 1
NREC 36 LENGTH 2242	IN 64 SP 10	МЛМТН 7 НОПР 6	DAY 8 MINUTE 10	YEAR 74 SFC 5	SITE Di	NCHAN 1
NREC 36 LENGTH 2242	IN 64 88 10	МПМ ГН 7 НОЦР 6	DAY A MINUTE 10	YEAR 74 SFC 5	SITE D2	NCHAN 1

NREC 36 LENGTH 2242	ID 64 SR 10	МОМТН 7 HUUR 6	DAY 8 MINUTE 10	YEAR 74 SEC 5	SITE D3	NCHAN 1
NREC 36 LENGTH 2242	ID 64 SR 10	MONTH 7 HOUR 6	8	YEAR 74 SEC 5	SITE D4	NCHAN 1
NREC 47 LENGTH 3004	ID 65 SR 10	10	DAY 2 MINUTE 8	YEAR 74 SFC 30	SITE	NCHAN 1
NREC 47 LENGTH 3004	ID 65 SR 10	MONTH 10 HOUR 1	YAN S STUNTE 8	YEAR 74 SEC 30	SITE B1	NCHAN 1
NREC 47 LENGTH 3004	ID 65 SR 10	10	DAY 2 MINUTE 8	YEAR 74 SEC 30	SITE B2	
NREC 47 LENGTH 3004	ID 65 SR 10	10	DAY 2 MINUIE 8	YEAR 74 SEC 30	SITE B3	NCHAN 1
NPEC 47 LENGTH 3004	ID 65 SR 10	MONTH 10 HOUR 1	8 MINNIE 5 DAY	YEAR 74 SFC 30	SITE 84	NCHAN 1
NRFC 47 LENGTH 3004	ID 65 SR 10	10	DAY 2 STUNTE 8	YEAR 74 SEC 30	SITE	NCHAN 1
NREC 47 LENGTH 3004	ID 65 SR 10	МОМТН 10 НОЧК 1	B S S OAY	YEAR 74 SEC 30		
NREC 47 LENGTH 3004	ID 65 SR 10	MONTH 10 HOUR 1	DAY 2 MINHTF 8	YEAR 74 SEC 30	SITE C3	NCHAN 1
NREC 47 LENGTH 3004	ID 65 SR 10	MOUTH 10 HOUR 1	DAY 2 MINUTE 8	YEAR 74 SFC 30	SITE Ç4	NCHAN 1
NRFC 47 LENGTH 3004	ID 65 SP 10	MONTH 10 HOUR 1	DAY 2 MINUTE 8	YEAR 74 SFC 30	SITE	NCHAN 1

NRFC 47 LENGTH 3004	ID 65 SR 10	MONTH 10 HOUR 1	DAY 2 MTNHTE B	YEAR 74 SFC 30	SITE	NCHAN 1
NRFC 47 LENGTH 3004	10 65 SP 10	MONTH 10 HOUR 1	DAY 2 MINUTE 8	YEAR 74 SEC 30	SITE D3	NCHAN 1
MREC 47 LENGTH 3004	ID 65 SR 10	MONTH 10 HOUR 1	8 МІННІЕ 5 DVA	YEAR 74 SEC 30	SITE D4	NCHAN 1
NREC 34 LENGTH 2382	ID 50 50 10	MONTH 12 HOUR 7	DAY 12 VINUTE 12	YEAR 70 SEC 0	SITE	NEHAN 1
NREC 38 LENGTH 2382	10 58 10	MONTH 12 HOUR 7	DAY 12 MINUTE 12	YEAR 70 SEC 0	SITE	NCHAN 1
NREC 38 LENGTH 2382	10 5R 10	™9NTH 12 HUUR 7	NIMILE 15 DAA	YEAR 70 SEC 0	SITE 82	NCHAN 1
NHEC 38 LENGTH 2382	In 58 10	40NTH 12 HUUR 7	0AY 12 MTMHTF 12	YEAR 70 SFC 0	SITE B3	NCHAN 1
NREC 38 LENGTH 2382	10 50 50 10	47004 12 11000 17	12	YEAR 70 SFL 0	SITE R4	NCHAN 1
NREC 38 LENGTH 2382	ID 66 SP 10	MONTH 12 HOUR 7	DAY 12 MINHTE 12	YEAR 70 SFC 0	SITE	NCHAN 1
NREC 34 LENGTH 2382	10 66 58 10	MONTH 12 HOUR 7	DAY 12 MINUTE 12	YEAR 70 SFC 0	C5 SITE	NCHAN 1
NREC 38 LENGTH 2382	ID SP 10	MONTH 12 HOUR 7	DAY 12 MINUTE 12	YEAR 70 SFC 0	SITE C3	NCHAN 1
NREC 38 LENGTH SAES	ID 66 88 10	MONTH 12 HOUR 7	0AY 12 WTHUTF 12	YEAR 70 SEC 0	SITE C4	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	_
38	66	12 HOUR	12 MINUTE	70 850	DI	1
LENGTH	SR	400K 7	410011	ort O		
5385	10	,	1 r	V		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D2	1
LENGTH	SR	HOUR				
5385	10	7	12	0		
NREC	ΙŊ	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	03	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		
NREC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D4	1
LENGTH	SR	нойн		SFC		
2382	10	7	1 2	0		
NOCC	1.0	MONTH	DAY	VEAD	SITE	NCHAN
NREC 38	10 66	הואניש 12	12	70	51 E 1	1
LENGTH	SP	HOUR		SFC	~ •	•
2382	10	7	12	0		
				W.S. A.C.	SITE	N. C LI A A.
NREC 38	_	9181H 51	12	YE AR 70	23	NCHAN 1
LENGTH		HOUR		SFC	(2	•
2385	10	7	12	0		
NREC	Ιņ	MUNTH	DAY	YEAR	SITE F3	
38	. რხ	12 H0UR	12 MINNIF	70 SFC	F 3	,
LENGIH	SP 10	7	12	3, 6		
	•					
NHEC	ID	MONTH	ŊΔY	YEAH	SITE	• =
35	66	1.2	12	70 SFC	F4	1
LENGTH	SR	нація 7	MINUTE 12	3F C		
5385	10	,	1 &	Ů,		
NREC	ľ٢	MONTH	¥ \$ 61	AFVB	SITE	NCHAN
38	ho	! 2	12	70	Fl	1
LEMBIH	30	HOUR		SFC		
2385	10	1	15	0		
MREC	<u>I</u> n	HINDM	044	YEAR	SITE	NCHAN
38	66	ے ۱	12	70	F2	1
LENGTH	3p	нрия	MINUTE	SEC		
5385	10	7	1 2	0)		
NAFC	In	мпитн	DAY	YEAR	SITE	NCHAN
38	60	12	15	70	F 3	1
LENGTH	SP	ноия	MINUTE	SEC		
2382	10	7	12	Ú		
NRFC	ΙD	MONTH	DAY	YEAR	SITE	NCHAN
38	40	1,2	51,	70	F4	1
LENGTH	3p	HOUR	MINUTE	SEC		
2382	1 0	7	12	0		

NREC 47 LENGTH	1D 67 SR	MONTH 6 HOUR	DAY 25 MINUTE	YEAR 70 SEC	SITE	NCHAN 1
5992	10	5	10	0		
NREC 47	10 67	HTMNM 6	DAY 25	YEAR 70	SITE	NCHAN 1
LENGTH 2992	SR 10	HOUR 5	MINUTE 10	SFC 0	· · · •	•
NREC 47	ID 67	MONTH	0AY 25	YEAR 70	SITE B2	NCHAN 1
LENGTH 2992	5R 10	ноия 5	MINUTE 10	SFC 0	٥ ٤	•
NREC 47	ID 67	MONTH 6	DAY 25	YEAR 70	SITE B3	NCHAN 1
LENGTH 2992	5R 10	ноия 5	MINDTE 10	SEC 0	6.3	•
NREC 47	10 67	MONTH	DAY 25	YEAR 70	SITE, 84	NCHAN
LENGTH 2992	5R 10	6 НОСЯ 5	MINUTE 10	SFC 0	, ,,	1
NREC	10	MONTH	DAY	YEAR	SITE	NEHAN
LENGTH	67 \$R	6 HQUP 5	25 MINUTE	70 SEC	C 1	1
N9EC 2992	10	ว MONTH	10	0	CITE	NCHAN
47	67	ь	ÐΔΥ 25	YE 4R 70	SITE	NCHAN 1
See2 TENGTH	5P 10	нопр 5	MINUTE 10	SEC U		
NREC 47	In	мпатн	ŊΛΥ	YEAR	SITE	NCHAN
LENGTH 2902	67 SR	6 HQUR	25 MINUTE	70 SEC	C 3	1
•	10	5	10	0	CITE	NCHAN
NREC 47	10 67	MONTH	25	70	SITE C4	NU. HAN
LENGTH 2992	5P 10	ج Hûlib	MINUTE 10	SFC 0		
NREC 47	ID 67	МОИТН	DAY	YEAR	SITE	
LENGTH 2992	SP	6 HOUR 5	25 MINUTE	70 SEC	ח 1	1
NREC	10	MONTH	10 DAY	0 YEAR	SITE	NCHAN
47	67	ь	25	70	05	NCHAN 1
LENGTH 2992	5 P 1 0	ноия 5	10 10	SEC 0		
NREC 47	10 67	MONTH	DAY	YE AR 70	SITE	NCHAN
LENGTH	SP	HUUR 6	25 MINUTE	SFC	D3	1
2992	10	5	10	0		

NREC 47 LENGTH 2992	ID 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SEC 0	SITE D4	NCHAN 1
NREC 47 LENGTH 2992	10 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SEC 0	SITE E1	NCHAN 1
NREC 47 LENGTH 2992	19 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTF 10	YEAR 70 SEC 0	ES SITE	NCHAN 1
NREC 47 LENGTH 2992	ID 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SFC 0	SITE E3	NCHAN 1
NREC 47 LENGTH 2992	ID 67 SP 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SEC 0	SITE E4	NCHAN 1
NREC 47 LENGTH 2992	ID 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SEC 0	SITE F1	NCHAN 1
NREC 47 LENGTH 2992	ID 67 SR 10	MONTH 6 HOUR 5	DAY 25 Minute 10	YEAR 70 SEC 0	SITE F3	NCHAN 1
NREC 47 LENGTH 2992	ID 67 SR 10	MONTH 6 HOUR 5	DAY 25 MINUTE 10	YEAR 70 SEC 0	SITE F4	NCHAN 1

Headers for CDC Data

1 1142 BY 66 2 13 2439170 49.8 N 78.1 E 28 329 U. 0 83.7 357.2 5 10 29.9 4 57 57.6 1142 8M 66/02/13 2439170 49.8 1 1178.1 F 6.3 1 KZ.7 357.2 75-10-29.9 04-57-57. A PLEDELGIFX 28 ALMA-ATA TO LAME BATKAL 329 FASTERN KAZAKH SSR 1 1142 F1 55 2 13 2439170 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 5 10 29.9 4 57 57.6 1142 F1 66/02/13 2439170 49.8 N 078.1 E 5.3 357.2 05-10-29.9 04-57-57 P3.7 .6 ULEDKEGTEX 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 1 1142 F2 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 83.7 357.2 5 10 29.9 4 57 57.6 1142 F2 66/02/13 2439170 49.8 M 078.1 E 6.3 357.2 ¤3.7 05-10-29.9 04-57-57 O .6 ULEDKOGIEY 28 ALMA 329 EASTERN KAZAKH SSR -ALV LO FORF BAIKAL 1 1142 F3 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 5 10 29.9 4 57 57.6 1142 F3 66/02/13 2439170 49.8 N 078.1 E 6.3 83.7 357.2 05-10-29.9 04-57-57 .6 ULEDKCGIEX S8 AFWV 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 1 1142 F4 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 5 10 29.9 0 57 57.6 1142 F4 60/02/13 49.8 N U78.1 E 6.3 2439170 P3.1 357**.**2 05-10-29.9 04-57-57 0 .6 ULEDKOGIEX 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 2 2317 RM 66 3 20 2439205 49.7 N 74.0 E 28 329 0. 0 83.8 357.3 6 2 30.4 5 49 57.4 2317 BM 66/03/20 2439205 49.7 N 078.0 E 6.2 P3.8 357.3 06-02-30.4 05-49-57 .4 XFLGYIKTCK AMJA 85 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 2 2317 F1 56 3 20 2439205 49.7 N 78.0 E 28 329 0. 0 83.8 357.3 6 2 30.4 5 49 57.4 2317 F1 66/03/20 078.0 E 6.2 2439205 49.7 N 83.8 05-49-57 357.3 06-02-30-4 .4 XELGYIKICK 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 2 2317 F2 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0 M3.8 357.3 6 2 30.4 5 49 57.4 2317 F2 66/03/20 2439205 49.7 4 074.0 E 6.2 05-02-30.1 яз. в 357.3 05-49-57 .4 XELGYIKTCK 26 ALMA 329 EASTERS KAZAKH SSR -ATA IN LAKE BAIKAL

2 2317 F3 56 3 20 2439205 49.7 N 78.0 E 28 329 0. 0 63.8 357.3 6 2 30.4 5 49 57.4 2317 F3 66/03/20

P3.8 357.3 06-02-30.4 05-49-57

49.7 9 078.0 E 6.2

2439205

x a a

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.4 XELGYIKICK
                                               28 ALMA
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  2 2317 F4 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
  83.8 357.3 6 2 30.4 5 49 57.4 2317 F4 66/03/20
                  078.0 E 6.2
  2439205
           49.7 N
                                  06-02-30.4
                                              05-49-57
                   83.8
                           357.3
.4 XELGYTKICK
                                              28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
  3 1174 BM 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 5 30.6 3 52 58.3 1174 RM 66/08/19
  2439357 49.8 N
                 078.1 E 4.7
                   P3.7
                           357.2 04-05-30.6
                                              03-52-58
               0
.3 KPVXPILKWU
                                              28 ALMA
                         329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  3 1174 F1 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 5 30.6 3 52 58.3 1174 F1 66/08/19
           49.8 N 078.1 E 4.7
  2439357
                                  04-05-30.6
                  83.7
                           357.2
                                             03-52-58
.3 KPVXPILKWI)
                                              28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
  3 1174 F2 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 5 30.6 3 52 58.3 1174 F2 66/08/19
  2439357
          49.8 N 078.1 E 4.7
               0
                   P3.7
                           357.2 04-05-30.6
                                             03-52-5A
.3 KPVXPTLKWII
                                               28 ALMA
                          329 EASTERN KAZAKH SSP
-ATA TO LAKE BAIKAL
  3 1174 F3 66 8 19 2439357 49.8 N 73.1 E 28 329 0. 0
  83.7 357.2 4 5 30.6 3 52 58.3 1174 F3
                                            66/08/19
          49.8 N 078.1 E 4.7
  2439357
                                  04-05-30.6
                                             03-52-5A
                  P3.7
                           357.2
.3 KPVXPILKWH
                                              28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
  3 1174 F4 66 8 19 2439357 49.8 N 78.1 E 28 329 0.
  83.7 357.2 4 5 30.6 3 52 58.3 1174 F4
                                            66/08/19
                           4.7
  2439357
         49.8 N 078.1 E
                   P 3 . 7
                           357.2
                                  04-05-30.6
                                             03-52-58
.3 KPVXPILKNU
                                              28 ALMA
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  4 1156 BM 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
  83.8 357.3 4 10 30.4 3 57 57.4 1156 RM 66/10/19
                           5.6
  2439418 49.7 % 078.0 E
                   ¤3.8
                                  04-10-30.4
                                             03-57-57
                           357.3
.4 LYDXEKZHZK
                                              28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
  4 1156 F1 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
  83.8 357.3 4 10 30.4 3 57 57.4 1156 F1
                                            66/10/19
  2439418
         49.7 N 078.0 E
                           5.6
                  P3.4
                           357.3
                                  04-10-30.4 03-57-57
.4 LYDXEKZHZK
                                              SB ALMA
-ATA TO LAKE HAIKAL
                          329 EASTERN KAZAKH SSR
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4 1156 F2 66 10 19 2439418 49.7 N 78.0 E 28 329 0.

25

.4 NHLHDFUFGX

357.3 4 10 30.4 3 57 57.4 1156 F2 66/10/19 83.8 2439418 078.0 E 5.6 49.7 N 357.3 04-10-30.4 03-57-57 0 P3.8 .4 LYDXEKZHZK 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 4 1156 F3 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0. 83.8 357.3 4 10 30.4 3 57 57.4 1156 F3 66/10/19 49.7 N 078.0 E 5.6 03-57-57 P3.8 357.3 04-10-30.4 .4 LYDXEKZHZK 28 ALMA 329 EASTERN KAZAKH SSP -ATA TO LAKE BAIKAL 4 1156 F4 66 10 19 2439418 49.7 N 78.0 E 28 329 U. 83.8 357.3 4 19 30.4 3 57 57.4 1156 F4 66/10/19 2439418 49.7 N 078.0 E 5.6 43.A 357.3 04-10-30.4 03-57-57 .4 LYCXEKZHZK 28 ALMA -ATA TO LAKE HAIKAL 329 EASTERN KAZAKH SSP 5 1603 BM 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0 59.4 6.3 6 8 4.7 5 57 57.8 1603 BM 66/10/27 75.4 N 054.6 E 6.3 2439426 6.3 06-08-04.7 05-57-57 59.4 0 .8 DOUVLOUDEY 40 APCT TC ZONE 648 NOVAYA ZEMLYA 5 1603 F1 65 10 27 2439425 73.4 N 54.6 E 40 648 0. 0 59.4 5.3 6 8 4.7 5 57 57.8 1603 F1 66/10/27 2439425 73.4 N 054.6 E 6.3 59.4 6.3 06-08-04.7 05-57-57 U * BUDATURY 40 ARCT TO ZONE 648 NOVAYA ZEMLYA 5 1603 F2 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0 6.3 6 R 4.7 5 57 57.8 1603 F2 66/10/27 59.4 2439426 054.6 E 6.3 73.4 N 59.4 6.3 05-57-57 06-08-04.7 .8 DOUVERUIDY 40 APCT TC ZONE 648 NOVAYA ZEMLYA 5 1603 F3 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0 6.3 6 8 4.7 5 57 57.8 1603 F3 66/10/27 50.4 73.4 1 054.6 E 6.3 2439426 59.4 6.3 06-08-04.7 05-57-57 Û *8 DOUVLOUNDX 40 ARCT TO ZONE 648 NOVAYA ZEMLYA 5 1503 F4 of 10 27 2434426 73.4 N 54.6 E 40 648 0. 0 50.4 h.3 o 8 4.7 5 57 57.8 1603 F4 66/10/27 1154.0 E 0.3 24341126 73.4 % 59.4 6.3 06-08-04.7 05-57-57 U ** BUNDANDA 40 ARCT TC ZOGE HAR NOVAYA ZEMLYA A 1641 PM 66 12 7 2439463 49.7 N 78.0 E 28 329 33. 33 HR. 9 357. 2 5 14 21.4 5 1 58.4 1691 HM 66/12/03 49.7 N 078.0 E 4.9

P3.8 357.3 05-14-31.4

05-01-58

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

6 1691 F1 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 5 14 31.4 5 1 58.4 1691 F1 66/12/03 2439463 49.7 N 078.0 E 4.9 2439463 05-14-31.4 P3.8 357.3 05-01-58 28 ALMA .4 WHLBDFUEOX 329 EASTERN KAZAKH SSR

6 1691 F2 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 5 14 31.4 5 1 58.4 1691 F2 66/12/03 2439463 49.7 N 078.0 E 4.9 357.3 05-14-31.4 05-01-58 P3.8 33 28 ALMA .4 WHLBDFUEOX

329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL

6 1691 F3 66 12 3 2439403 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 5 14 31.4 5 1 58.4 1691 F3 66/12/03 49.7 N 078.0 E 4.9 2439463 05-01-58 33 P3.8 357.3 05-14-31-4

28 ALMA .4 WHLBDFUEDY 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL

6 1691 F4 o6 12 3 2439463 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 5 14 31.4 5 1 58.4 1691 F4 60/12/03 2439467 49.7 N 078.0 E 4.9 33 83.8 357.3 05-14-31.4 05-01-58 .4 WHLBDFUEOX S8 YFWY

329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL

7 1591 BM 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 10 29.5 4 57 57.6 1591 BM 66/12/18 ₹2439478 49.9 N 077.7 E 5.9 357.5 05-10-29.5 04-57-57 P3.6 AMJA 85 .6 CLPDVRHHXZ 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL

7 1591 F1 06 12 18 2439478 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 10 29.5 4 57 57.6 1591 F1 66/12/18 2439478 49.9 N 077.7 E 5.9 05-10-29.5 04-57-57 P3.6 357.5 0 28 ALMA .6 CLPDVRRHXZ

329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL

7 1591 F2 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0 g: , 357.5 5 10 29.5 4 57 57.6 1591 F2 66/12/18 49.9 N 077.7 E 5.9 05-10-29.5 04-57-57 357.5 P3.6 S8 ALMA CLPDVRRHX7

329 EASTEPN KAZAKH SSR -ATA TO LAKE BAIKAL

7 1591 F5 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 10 29.5 4 57 57.6 1591 F3 66/12/18 49.9 N 077.7 E 5.9 2439478 P3.6 04-57-57 357.5 .05-10-29.5 28 ALMA

.6 CLPDVRRHXZ -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 F4 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 10 29.5 4 57 57.6 1591 F4 66/12/18

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077.7 E 5.9
  243947A 49.9 N
                    P3.6
                            357.5
                                    05-10-29.5
                                                 04-57-57
.6 CLPDVRRHXZ
                                                  28 ALMA
-ATA TO LAKE BAIKAL
                            329 EASTERN KAZAKH SSR
 8 3153 BM 67 2 26 2439548 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 BM 67/02/26
          49.8 N
                  078.1 E 6.0
 2439548
                                   04-10-29.9
                                                 03-57-57
                    P3.7
                             357.2
.6
    PEVKXRJLTJ
                                                 28 ALMA
                           329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
 8 3153 F1 67 2 26 2439548 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 10 29.9 3 57 57.6 3153 F1
                                               67/02/26
          49.8 N 078.1 E 6.0
 2439548
                                                03-57-57
                             357.2
                                    04-10-29.9
                    83.7
                                                  AMAA 85
.6 PEVKXRJLTJ
                            329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIMAL
  R 3153 F2 67 2 26 2439548 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 10 29.9 3 57 57.6 3153 F2 67/02/26
  2439548 49.8 N 078.1 E 6.0
                                               03-57-57
                                    04-10-29.9
                    A3.7
                             357.7
.6 PEVKXRJLTJ
                                                  28 ALMA
                            329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  8 3153 F3 67 2 26 2430548 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 10 29.9 3 57 57.6 3153 F3 67/02/26
  2439548 49.8 N 078.1 E
                             6.0
                                    04-10-29.9
                                                03-57-57
                   P3.7
                             357.2
.6 PEVKXRJLTJ
                                                  SA AFWA
                           329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  8 3153 F4 67 2 26 2439548 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 4 10 29.9 3 57 57.6 3157 F4 67/02/26
  2434548
          49.4 N 076.1 E 6.0
                                     04-10-29.9
                                                 03-57-57
                             357.2
                   83.7
                n
.6 PEVKXFJLTJ
                                                  AM IA 85
                            379 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
  9 3178 8M 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33
  83.7 357.2 6 10 32.2 5 57 59.9 3178 BM
                                              67/03/25
  2439575
          49.8 N
                   078.1 E 5.3
                             357.2 06-10-32.2
                                                 05-57-59
                    93.7
                                                  28 ALMA
.9 LJZCEXDRHU
-ATA TO LAKE BAIKAL
                           329 EASTERN KAZAKH SSR
  9 3178 F1 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33
  83.7 357.2 6 10 32.2 5 57 59.9 3178 F1
                                                67/03/25
           49.8 N 078.1 E 5.3
                                   06-10-32.2 05-57-59
                    P3.7
                             357.2
.9 LJZCEXDRHII
                                                  28 ALMA
                            329 EASTERN KAZAKH SSR
-ATA TO LAKE HAIKAL
  9 3178 F2 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 6 10 32.2 5 57 59.9 3178 F2 67/03/25
  2439575 49.8 N 078.1 E 5.3
                                                 05-57-59
                             357.2
                                   06-10-32.2
                     ۶3.7
                                                  S8 WIWW
.9 LUZCEXDRHU
                           329 EASTERN KAZAKH SSR
-ATA TO LAKE HAIKAL
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9 3178 F3 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 6 10 32.2 5 57 59.9 3178 F3 67/03/25 2439575 49.8 N 078.1 E 5.3 ۶3.7 06-10-32.2 357.2 05-57-59 33 .9 LJZCEXDRHU 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 9 3178 F4 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 6 10 32.2 5 57 59.9 3178 F4 67/03/25 078.1 E 5.3 2439575 49.8 N 357.2 05-57-59 P3.7 06-10-32.2 33 LJZCEXDRHII . 9 28 ALMA 329 EASTERN KAZAKH SSP -ATA TO LAKE BAIKAL 10 1828 8M 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0 83.8 357.2 4 20 30.3 4 7 57.3 1828 RM 67/04/20 2439601 49.7 N 078.1 E 5.7 04-20-30.3 04=07-57 P3.8 357.2 .3 XOFBULGZCB 28 ALMA -ATA TO LAKE BAIKAL 329 EASTEPN KAZAKH SSR 10 1828 F1 67 4 20 2439601 49.7 N 78.1 F 28 329 0. 0 83.8 357.2 4 20 30.3 4 7 57.3 1828 F1 67/04/20 2439601 49.7 N 078.1 E 5.7 A3.8 357.2 04 - 20 - 30.304-07-57 .3 XOFBULG7CP 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 10 1828 F2 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0 357.2 4 20 30.3 4 7 57.3 1828 F2 67/04/20 83 R 49.7 N 078.1 E 5.7 2439601 04 - 20 - 30 - 3A 3 . 8 357.2 04-07-57 .3 XOFBULGZCR AMAA 85 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 10 1828 F3 57 4 20 2439501 49.7 N 78.1 E 28 329 0. 0 83.8 357.2 4 20 30.3 4 7 57.3 1828 F3 67/04/20 49.7 N 078.1 E 5.7 2439601 83.8 357.2 04-20-30.3 04-07-57 0 .3 XOFBULGZCP SA VEWY -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 10 1828 F4 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 83.8 357.2 4 20 30.3 4 7 57.3 1828 F4 67/04/20 49.7 N 078.1 E 5.7 2439601 357.2 04-20-30.3 04-07-57 P3.8 0 .3 KOFBULG7CB S8 ALMA -ATA IN LAKE BAIKAL 329 EASTERN KAZAKH SSP 11 3257 84 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33 83.7 357.3 4 20 36.5 4 8 4.2 3257 BM 67/05/28 5.9 2439639 49.8 N U78.0 E 04-08-04 P3.7 357.3 04-20-36.5 33 .2 HLWXEYSWZS 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 11 3257 F1 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33

83.7 357.3 4 20 36.5 4 8 4.2 3257 F1 67/05/28

2439639 49.4 N 078.0 E 5.9

-ATA TO LAKE BAIKAL

xaa

33 83.7 357.3 04-20-36.5 04-08-04
.2 HLWXEYSWZS 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTEPN KAZAKH SSR

11 3257 F2 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33 83.7 357.3 4 20 36.5 4 8 4.2 3257 F2 67/05/28 2439639 49.8 N 078.0 E 5.9 33 83.7 357.3 04-20-36.5 04-08-04 .2 HLXXEYSWZS 28 ALMA

11 3257 F3 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33 83.7 357.3 4 20 36.5 4 8 4.2 3257 F3 67/05/28 2439639 49.8 N 078.0 E 5.9 33 83.7 357.3 04-20-36.5 04-08-04 .2 HLWXEYSWZS 28 ALMA

329 EASTERN KAZAKH SSR

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 F4 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33 83.7 357.3 4 20 36.5 4 8 4.2 3257 F4 67/05/28 2439639 49.8 N 078.0 E 5.9 33 83.7 357.3 04-20-36.5 04-08-04 .2 HLWXEYSWZS 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 BM 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 3 9 21.8 2 56 48.8 3323 RM 67/06/29 2439671 49.7 N 078.0 E 5.9 33 83.8 357.3 03-09-21.8 02-56-48 8 KHLRGWRJXO 28 ALMA

-ATA TO LAKE BATKAL 379 EASTERN KAZAKH SSR

12 3323 F1 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 3 9 21.8 2 56 48.8 3323 F1 67/06/29 2439671 49.7 N 078.0 E 5.9 33 83.8 357.3 03-09-21.8 02-56-48 8 ALMA -ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR

12 3323 F2 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33 63.8 357.3 3 9 21.8 2 56 48.8 3323 F2 67/06/29 2439671 49.7 N 078.0 E 5.9 33 83.8 357.3 03-09-21.8 02-56-48 8 KHLPGWRJXO 28 ALMA

-ATA TO LAKE GAIKAL 329 EASTERN KAZAKH SSR

12 3323 F3 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 3 9 21.8 2 56 48.8 3323 F3 67/06/29 2439671 49.7 N 078.0 E 5.9 33 83.8 357.3 03-09-21.8 02-56-48 8 KHLRGWRJXO 28 ALMA

.8 KHLRGWRJXN 78 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 F4 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33 83.8 357.3 3 9 21.8 > 56 48.8 3323 F4 67/06/29 2439671 49.7 N 078.0 E 5.9 33 83.8 357.3 03-09-21.8 02-56-48 .8 KHLPGWRJXC 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP

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13 3496 BM 67 7 15 2439687 49.8 N 78.1 E 28 329 0.
  83.7 357.2 3 39 29.6 3 26 57.3 3496 RM 67/07/15
         49.8 N 078.1 E 5.4
 2439687
                                  03-39-29.6
                                            03-26-57
                 P3.7
                           357.2
                                               28 ALMA
.3 TRXPWHDLVF
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE HAIKAL
13 3496 F1 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 3 39 29.6 3 26 57.3 3496 F1
                                           67/07/15
 2439687 49.8 N 078.1 E 5.4
                                              03-26-57
                                 03-39-29-6
                  P3.7
                          357.2
               0
                                               SB ALMA
.3 TRXBWHDLVF
                          329 EASTERN KAZAKH SSR
-ATA IN LAKE BAIMAL
13 3496 F2 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 3 39 29.6 3 26 57.3 3496 F2 67/07/15
         49.8 N 078.1 E 5.4
 2439687
                                            03-26-57
                                  03-39-29-6
                 83.7
                           357.2
               0
.3 TRXBWHDLVF
                                               28 ALMA
                          329 EASTERN KAZAKH SSP
-ATA TO LAKE BAIKAL
13 3496 F3 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 3 30 20.6 3 26 57.3 3496 F3 67/07/15
 2439687 49.8 N 078.1 E 5.4
                           357.2
                                 03-30-29.6
                  Р3.7
                                             03-26-57
                                               AMJA 85
.3 FRXBWHOLVF
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
13 3496 F4 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 3 39 29.0 3 26 57.3 3496 F4 67/07/15
          49.8 N 078.1 E 5.4
  2439687
                                            03-20-57
                 я3.7
                           357.2
                                  03-39-29.6
                                               AM JA 85
.3 TRXRWHDLVF
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
14 3576 PM 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
   83.7 357.3 7 10 30.5 6 57 58.2 3576 BM 67/08/04
  2439707 49.8 N 078.0 E 5.3
                                             06-57-58
                           357.3 07-10-30.5
              33
                 P3.7
                                              AMJA 85
.2 GVYTXJLKKN
                         329 EASTERN KAZAKH SSP
-ATA IN LAKE BAIKAL
14 3576 F1 67 8 4 2439707 49.8 N 7H.O E 28 329 33. 33
  83.7 357.3 7 10 30.5 6 57 58.2 3576 F1 67/08/04
         49.8 N 078.0 E 5.3
  2439707
                                 07-10-30-5
                                             06-57-58
              33 P3.7
                           357.3
                                               AMJA 85
.2 GVYTXJLKKN
                          329 EASTEPN KAZAKH SSR
-ATA TO LAKE BAIKAL
 14 3576 F2 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
   83.7 357.3 7 10 30.5 6 57 58.2 3576 F2 67/08/04
  2439707 49.8 N 078.0 E 5.3
                           357.3 07-10-30.5
                                              06-57-5A
                   P3.7
                                               28 ALMA
.2 GVYTXJLKKO
                         329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
 14 3576 F3 67 A 11 2479707 49.8 N 78.0 E 28 329 33. 33
  83.7 357.3 7 10 30.5 6 57 58.2 3576 F3 67/08/04
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73 PS.7 757.7 07-10-30.5

06-57-58

2439707 49.8 N 078.0 E 5.3

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.2 GVYTXJLKKN
                                                28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
14 3576 F4 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
  83.7 357.3 7 10 30.5 6 57 58.2 3576 F4 67/08/04
 2439707
         49.8 N 078.0 E 5.3
                           357.3
                                   07-10-30.5
                                               06-57-5A
              33
                   я3.7
. 2
    GVYTXJLKKO
                                                28 ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
15 1249 RM 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 16 29.2 4 3 57.9 1249 RM 67/09/16
 2439750
         50.0 N 077.7 E 5.3
                  P3.5
                           357.5
                                   04-16-29-2
                                               04-03-57
.9 SPXBLKPVJB
                                               28 ALMA
                         329 EASTERN KAZAKH SSP
-ATA TO LAKE BAIKAL
15 1249 F1 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 29.2 4 3 57.9 1249 F1 67/09/16
 2439750 50.0 N 077.7 E 5.3
                  A3.5
                           357.5
                                 04-16-29.2
                                               04-03-57
               ú
.9 SPXRLKPVJR
                                               28 ALMA
                         329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
15 1249 F2 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 29.2 4 3 57.9 1249 F2 67/09/16
         50.0 N 077.7 E 5.3
 2439750
                          357.5
                  P3.5
                                 04-16-29.2
                                             04-03-57
.9 SPXRLKPVJF
                                               SH ALMA
                          329 EASTERN KAZAKH SSP
-ATA TO LAKE BAIKAL
15 1249 F3 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 29.2 4 3 57.9 1249 F3 67/09/16
 2439750 50.0 h 077.7 E 5.3
                           357.5 04-16-29.2 04-03-57
                   P3.5
.9 SPXBLKPVJB
                                                28 ALMA
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BATKAL
15 1249 F4 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 29.2 4 3 57.9 1249 F4 67/09/16
 2439750 50.0 N 077.7 E 5.3
                   83.5
                           357.5
                                   04-16-29.2
                                             04-03-57
                                               28 ALMA
.9 3PXFLKPYJP
                          329 EASTERN KAZAKH SSR
-ATA TO LAKE BAIKAL
 16 3808 BM 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
  83.6 357.5 5 16 29.2 5 3 57.3 3808 BM 67/09/22
 2439756 49.9 N 077.7 E 5.3
                   93.6
                           357.5
                                   05-16-29.2 05-03-57
.3 OLIMPXZPNE
                                                28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
 16 38 6 F1 57 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
  -1.57.5 5 16 29.2 5 3 57.3 3808 F1 67/09/22
   . 1. 15 k . 19.9 N . 077.7 E . 5.3
                   93.5
                           357.5 05-16-29.2
                                               05-03-57
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11.77 - 19.9 N 77.7 E 28 329 0. 0

329 EASTERI, KAZAKH SSP

S8 ALMA

357.5 5 16 29.2 5 3 57.3 3808 F2 67/09/22 83.6 2439756 49.9 N 077.7 E 5.3 357.5 83.6 05-16-29.2 05-03-57 .3 OLIMPXZPWF 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 16 3808 F3 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 16 29.2 5 3 57.3 3808 F3 67/09/22 49.9 N 077.7 E 2439756 5.3 357.5 05-16-29.2 0 P3.6 05-03-57 .3 OLIMPXZPWF 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 16 3808 F4 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0 83.6 357.5 5 16 29.2 5 3 57.3 3808 F4 67/09/22 49.9 N 077.7 E 2439756 5.3 0 P3.6 357.5 05-16-29.2 05-03-57 .3 OLIMPXZPWE 26 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 17 4100 BM 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33 75.7 4.7 7 11 45.6 6 59 56.7 4100 BM 67/10/06 57.7 N 065.3 E 4.7 2439770 75.7 4.7 07-11-45.6 06-59-56 .7 BYCLDZMEBX SA ALMA -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA 17 4100 F1 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33 75.7 4.7 7 11 45.6 6 59 56.7 4100 F1 67/10/06 57.7 N 065.3 E 2439770 4.7 75.7 4.7 07-11-45.6 33 06-59-56 .7 BYCLDZMEBY S8 ALMA -ATA TO LAKE HATKAL 326 CFUTRAL RUSSIA 17 4100 F2 67 10 6 2439771 57.7 N 65.3 E 28 326 33. 33 75.7 4.7 7 11 45.0 6 59 56.7 4100 F2 67/10/06 57.7 N 065.3 E 4.7 2439770 75.7 4.7 07-11-45.6 06-59-56 33 .7 BYCLDZWEBX PH ALMA -ATA TO LAKE HOLKAL 326 CENTRAL HUSSIA 17 4100 F3 67 10 6 2439770 57.7 H 65.3 E 28 326 33. 33 4.7 7 11 45.6 6 59 56.7 4100 F3 67/10/06 75.7 57.7 Y 065.3 F 4.7 2439770 75.7 4.7 07-11-45.6 06-59-56 .7 BYCLDZMFEY 2H ALMA -ATA TO LAKE HAIKAL 326 CENTRAL RUSSIA 17 4100 F4 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33 75.7 d.7 7 11 45.5 6 59 56.7 4100 F4 67/10/06 2439710 57.7 1 065.3 1 4.7 33 75.7 4.7 07-11-45.6 06-59-56 .7 BYCLD7MFBX SA ALMA -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA 18 4152 BM 67 10 17 2439781 49.8 N 78.0 E 28 329 U. 0 83.7 357.3 5 16 30.2 5 3 57.9 4152 PM 67/10/17 2439781 49.8 4 078.0 E 5.7 83.7 357.3 05-16-30.2 05-03-57

28 ALMA

0

.9 RIRUEZLHXT

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-ATA TO LAKE BAIKAL
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329 EASTERN KAZAKH SSP

18 4152 F1 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 5 16 30.2 5 3 57.9 4152 F1 67/10/17 2439781 49.8 N 078.0 E 5.7 0 83.7 357.3 05-16-30.2 05-03-57 9 RIRUEZLHXT 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

18 4152 F2 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 5 16 30.2 5 3 57.9 4152 F2 67/10/17 2439781 49.8 N 078.0 E 5.7 0 83.7 357.3 05-16-30.2 05-03-57 .9 RIRUEZLHXT 28 ALMA

-ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR

18 4152 F3 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 5 16 30.2 5 3 57.9 4152 F3 67/10/17 2439781 49.8 N 078.0 E 5.7

0 83.7 357.3 05-16-37.2 05-03-57 .9 RTRUEZLHKT 28 ALMA -4TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

18 4152 F4 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 5 16 30.2 5 3 57.9 4152 F1 67/10/17 2439781 49.8 N 078.0 E 5.7

0 P3.7 357.3 05-16-30.2 05-03-57.9 RIRUEZLHXT 28 ALMA -4TA IN LAKE BAIKAL 329 EASTEPN KAZAKH SSP

19 4180 RM 67 10 21 2439785 73.4 4 54.8 E 40 648 0. 0 59.4 6.2 5 10 4.8 4 59 57.8 4180 RM 67/10/21 2439785 73.4 1 054.8 E 5.9 6 57.8 4180 RM 67/10/21 6.2 05-10-04.8 04-59-57 40 APCT TC ZO4E 548 MOVAYA 7EMLYA

19 41M0 F2 67 10 21 21397M5 73.4 N 54.8 E 40 648 0. 0 59.4 6.2 5 10 4.8 E 57.8 41M0 F2 67/10/21 24397M5 75.4 N 054.8 E 5.9 0 59.4 6.2 05-10-04.8 04-59-57 40 ARCT TC ZOME 648 NOVAYA ZEMLYA

19 4180 F3 67 10 21 2439785 73.4 N 54.2 E 40 648 0. 0 59.4 6.2 5 10 4.4 4 59 57.8 4180 F3 67/10/21 2439785 73.4 N 054.8 E 5.9 0 59.4 6.2 05-10-04.8 04-59-57 8 AWGLXJMFYP 40 ARCT IC ZONE 648 NOVAYA 7EMLYA

19 4180 F4 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0 59.4 6.2 5 10 4.8 4 59 57.8 4180 F4 67/10/21

-ATA TO LAKE HAIKAL

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2439785
                   054.8 E
                           5.9
          73.4 N
                   59.4
                            6.2 05-10-04.8
                                              04-59-57
    WWGLXJMEYP
                                              40 ARCT
                      . 648 NOVAYA ZEMLYA
TC ZONE
20 4578 PM 67 10 30 2439794 49.8 N 78.0 E 28 329 U. 0
  83.7
         357.3 6 16 30.1 6 3 57.8 4578 BM
                                           67/10/30
  2439794
          49.8 N
                 078.0 E
                           5.5
                  P3.7
                           357.3
                                  06-16-30.1
                                              06-03-57
.8 OZRKLSJTXB
                                               28 ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
20 4578 F1 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
  83.7 357.3 6 16 30.1 6 3 57.8 4578 F1 67/10/30
 2439794
         49.8 N
                 078.0 E 5.5
                   P3.7
                           357.3
                                06-16-30.1
                                             06-03-57
.8 OZRKESJIXR
                                              SR VEWY
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
20 4578 F2 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
  83.7 357.3 o 16 30.1 6 3 57.8 4578 F2 67/10/30
         49.8 N 078.0 E 5.5
                  P3.7
                          357.3
                                 06-16-30.1
                                             06-03-57
.A UZHKLSJTXA
                                              28 ALMA
-ATA TO LAKE BAIKAL
                       329 EASTERN KAZAKH SSR
20 4578 F3 67 10 30 2439799 49.8 N 78.0 E 28 329 0. 0
  83.7 357.3 6 16 30.1 6 3 57.8 4578 F3 67/10/30
         49.8 % 078.0 5 5.5
 2439793
                  £3.7
                          757.3
                                06-16-30.1
                                            06-03-57
. H DZPKLSJTX8
                                              S8 MEMA
                         329 EASTERN KAZAKH SSP
-ATA IN LAKE BAIMAL
20 4578 F4 57 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
  H3.7 357.3 6 16 30.1 6 3 57.8 4578 F4 67/10/30
 2434791 14.8 4 (17M.1) E 5.5
                  р3.7
                          357.3
                                05-16-30-1 06-03-57
.8 OZHKLSJIKP
                                              28 ALMA
-ATA TO LAKE HAIFAL
                         329 EASTERN KAZAKH SSR
21 2155 BM 67 11 22 2439817 50.0 4 77.7 E 29 329 U. 0
  43.5 357.5 4 16 28.9 11 3 57.6 2135 AM
                                           67/11/22
 2459817 50.0 . 677.7 E 4.8
                  £3.5
                          357.5
                                04-16-28-9
                                            04-03-57
.6 BLH7IBDSVX
                                              28 ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
21 2135 F1 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 28.9 4 3 57.6 2135 F1 67/11/22
  2439817 50.0 N 077.7 E 4.8
                  P3.5
                          357.5
                                04-16-28.9
                                            04-03-57
.6 BLH7IRDSVY
                                              28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
21 2135 F2 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0
  83.5 357.5 4 16 28.9 4 3 57.6 2135 F2
                                           67/11/22
 2439817
                           4.8
         50.0 N 077.7 E
                  P3.5
                          357.5
                                04-16-28.9
                                            04-03-57
.6 BLHZIRDSVX
                                              SA ALMA
```

329 EASTERN KAZAKH SSR

21 2135 F3 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 16 28.9 4 3 57.6 2135 F3 67/11/22 2439817 50.0 N 077.7 E 4.8 0 83.5 357.5 04-16-28.9 04-03-57 .6 BLHZIRUSVX 28 ALMA -ATA TO LAKE BATMAL 329 EASTERN KAZAKH SSR

21 2135 F4 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 16 28.9 4 3 57.6 2135 F4 67/11/22 2439817 50.0 N 077.7 E 4.8 0 83.5 357.5 04-16-28.9 04-03-57 .6 BLH7IBDSVX 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2837 8M 67 12 8 2439833 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 6 16 29.3 6 3 57.0 2837 8M 67/12/08 2439833 49.8 N 078.2 E 5.4 0 83.7 357.1 06-16-29.3 06-03-57 .0 E7XGVYPWLM 28 ALMA

-ATA TO LAKE SAIKAL 329 EASTERN KAZAKH SSR 22 2837 F1 67 12 8 2439853 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 5 16 29.5 5 3 57.0 2837 F1 67/12/08

22 2837 F2 67 12 8 2439833 49.8 N 76.2 E 28 329 U. 0 83.7 357.1 6 16 29.3 6 3 57.0 2857 F2 67/12/08 2439853 49.8 1 078.2 F 5.4 0 85.7 357.1 06-16-29.3 06-03-57

.U ETKGVYPMLM 28 ALMA -ATA TO LAME HALKAL 329 EASTERN MAZAMH SSR

22 2837 F3 67 12 9 2434937 49.8 4 74.2 E 28 729 U. 0 83.7 357.1 6 16 24.5 6 3 57.0 2837 F3 67/12/08 2439837 49.8 4 074.2 E 5.4 U 83.7 357.1 06-16-29.3 U6-03-57 U6-03-57 28 ALMA

-ATA TO LAME BAIMAL 329 EASTERN KAZAMM SSE

22 2837 F4 67 12 8 2439833 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 6 16 29.3 6 3 57.0 2837 F4 67/12/08 2439833 49.8 N 078.2 E 5.4 0 83.7 357.1 06-16-29.3 06-03-57 0 E7XGVYPWLM 28 ALMA -ATA TO LAKE HAIMAL 329 EASTERN KAZAKH SSR

23 5038 PM 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 3 59 29.9 3 46 57.6 5038 RM 68/01/07 2439863 49.8 N 078.0 E 5.3 0 83.7 357.3 03-59-29.9 03-46-57

.6 WLSCYWCYGJ 28 ALMA
-ATA TO LAKE HAIKAL 329 EASTERN KAZAKH SSR

23 503R F1 6R 1 7 2439R63 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 3 59 29.9 3 46 57.6 503R F1 68/01/07 2439R63 49.8 N 078.0 E 5.3

-ATA TO LAKE BAIKAL

P3.7 357.3 03-59-29.9 03-46-57 .6 WLSCYWCXGJ 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 23 503R F2 6R 1 7 2439863 49.8 N 78.0 E 2R 329 0. 0 83.7 357.3 3 59 29.9 3 46 57.6 5038 F2 68/01/07 2439863 49.8 N 078.0 E 5.3 P3.7 357.3 03-59-29.9 03-46-57 28 ALMA .6 WESCYWCXGJ -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 23 5038 F3 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 3 59 29.9 3 46 57.6 5038 F3 68/01/07 2439863 49.8 N U78.0 E 5.3 P3.7 03-59-29.9 03-46-57 0 357.3 .6 MLSCYMCXGJ 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 23 5038 F4 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 3 59 29.9 3 46 57.6 5038 F4 68/01/07 2439863 49.8 N 078.0 E 5.3 ۶3**.**7 357.3 03-59-29.9 03-40-57 O. AMJA 85 .6 NESCYMCYGJ 329 EASTERN KAZAKH SSP -ATA TO LAKE BAIKAL 24 5907 RM 58 4 24 2439971 49.8 N 78.1 E 28 329 51. 51 83.7 357.2 10 35 42.7 to 23 10.4 5907 RM 68/04/24 49.8 N 078.1 E 4.1 2139971 A3.7 10-35-42.7 10-23-10 51 357.2 28 ALMA .4 SVXEYHUYLT 329 EASTERN HAZAKH SSR -ATA TO LAKE HA[KAL 24 5907 F1 58 4 24 24399/1 49.8 N 78.1 E 28 329 51. 51 83.7 357.2 to 35 42.7 to 23 10.4 5907 Ft 68/04/24 2134971 49.8 4 07H.1 E 4.1 10-35-42.7 10-23-10 51 P3.7 357.2 .4 BVXEYPHYLT AMJA 85 -VIV TO FORE HOTKOL 329 EASTERN KAZAKH SSR 24 5907 F2 68 4 24 2439971 49.4 % 78.1 E 28 329 51. 51 43.7 357.2 10 35 42.7 10 23 10.4 5907 F2 AH/04/24 2434971 49.8 % 078.1 E 4.1 5.1 P3.7 357.2 10-35-42.7 10-23-10 .4 BVXFYBUYLT 2H ALMA -ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR 24 5907 F3 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51 83.7 357.2 10 35 42.7 10 23 10.4 5907 F3 68/04/24 2439971 49.8 % 078.1 E 4.1 51 P3.7 357.2 10-35-42.7 10-23-10 .4 BVXFYBUYLT 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 24 5907 F4 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51 83.7 357.2 10 35 42.7 10 23 10.4 5907 F4 68/04/24 2439971 49.8 N 078.1 E 4.1 51 P3.7 357.2 10-35-42.7 10-23-10 BVXEYBUYLT AMJA 85 329 EASTERN KAZAKH SSR

25 6150 BM 68 5 21 2439998 38.8 N 65.1 E 48 714 33. 33 94.4 6.8 3 11 39.4 2 58 16.2 6150 RM 68/05/21 2439998 38.8 N 065.1 E 4.3 03-11-39.4 02-58-16 てて 94.4 6.8 .2 YPDTQLOUDW 48 HIND 714 SOUTHEASTERN UZBEK SSR U KUSH AND PAMIR 25 6150 F1 68 5 21 2439998 38.8 N 65.1 E 48 714 33. 33 6.8 3 11 39.4 2 58 16.2 6150 F1 68/05/21 94.4 38.8 N U65.1 E 4.3 2439998 94.4 6.8 33 03-11-39-4 02-58-16 48 HIND .2 YPDTQLQUDW U KUSH AND PAMIR 714 SOUTHFASTERN UZBEK SSR 25 6150 F2 68 5 21 2439998 38.8 N 65.1 E 48 714 33. 33 94.4 6.8 3 11 39.4 2 58 16.2 6150 F2 68/05/21 2439998 38.8 N 065.1 E 4.3 6.º 94.4 03-11-39.4 02-58-16 33 WOULD JUTCHY S. 48 HIND 714 SOUTHFASTERN UZBEK SSR U KUSH AND PAMIR 25 6150 F3 68 5 21 2439998 38.8 N 65.1 E 48 714 33. 33 6.8 3 11 39.4 2 58 16.2 6150 F3 68/05/21 94.4 38.8 N 065.1 E 4.3 2439998 04.4 6.8 02-58-16 33 03-11-39.4 .2 YPDTOLOUD& 48 HIND U KUSH AND PAMTR 714 SOUTHFASTERN UZPEK SSR 25 6150 F4 68 5 21 2439998 38.8 N 65.1 E 48 714 33. 33 94.4 h.8 3 11 29.4 2 58 15.2 6150 F4 3 N. A 4 465.1 E 4.3 APPPFLC 4.40 6.8 95-11-39.4 02-58-16 33 .2 YPOTHLOHUM 48 HIND H KUSH AND PAHIN 714 SOUTHFASTERN UZPEK SSR 26 8162 AV 58 6 11 2470019 49.8 N 78.1 E 28 329 0. A3.7 357.2 3 18 30.0 3 5 57.7 8162 BM 68/06/11 2440012 40.8 M 078.1 F 5.3 03-05-57. n A7.7 357.2 03-18-30.0 VVPXRHPULZ SH PENY-ATA TO LAKE MATHAL 329 FASTERN KAZAKH SSR 26 8162 F1 58 6 11 2440019 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 3 18 30.0 3 5 57.7 8162 F1 68/06/11 2440019 49.8 N 078.1 E 5.3 03-18-30.0 P 3.7 357.2 03-05-57 U .7 VVRXREPOLT 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 26 8167 F2 69 6 11 2440019 49.8 N 78.1 E 28 329 0. 0 H3.7 357.2 3 18 30.0 3 5 57.7 8162 F2 68/06/11 2440019 49.A N 078.1 E 5.3 0 P3.7 357.2 03-18-30.0 03-05-57 .7 VVHXRBPOLZ 28 ALMA

26 8162 F3 68 6 11 2440019 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 3 18 30.0 3 5 57.7 8162 F3 68/06/11 2440019 49.8 W 078.1 E 5.3

329 EASTERN KAZAKH SSR

-ATA TO LAKE HATKAL

03-05-57 0 P3.7 357.2 03-18-30.0 .7 VVRXRBPOLZ 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 26 8162 F4 68 6 11 2440019 49.8 N 78.1 E 28 329 0. 83.7 357.2 3 18 30.0 3 5 57.7 8162 F4 68/06/11 2440019 49.8 N 078.1 E 5.3 0 83.7 357.2 03-18-30-0 03-05-57 .7 VVRXRBPOL7 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 27 8191 BM 68 6 19 2440027 50.0 N 79.1 E 28 329 0. 83.5 356.6 5 19 28.3 5 5 57.3 8191 RM 68/06/19 2440027 50.0 N 079.1 E 5.5 P3.5 0 05-18-28.3 05-05-57 356.6 .3 CJXLVQEJIR 28 ALMA -ATA TO LAKE BAIKAL 329 FASTERN KAZAKH SSP 27 8191 F1 68 6 19 2440027 50.0 N 79.1 E 28 329 U. 0 83.5 356.6 5 1º 28.3 5 5 57.3 8191 F1 68/06/19 2440027 SU.U 4 079.1 E 5.5 0 P3.5 356.6 05-18-28.3 US-05-57 PITENVALUE 6. AM IA 85 -ATA TO LAKE BAIKAL 329 FASTERN KAZAKH SSR 27 8191 F2 68 6 19 2440027 50.0 N 79.1 E 28 329 0. 0 83.5 356.6 5 18 28.3 5 57.3 H191 F2 68/06/19 2449027 50.0 N 979.1 E 5.5 A3.5 356.6 05-18-28.3 05-05-57 PILBONARLO E. 28 ALMA 329 EASTEPN KAZAKH SSR -ATA TO LAKE HATKAL 27 8191 F3 68 5 19 2445027 50.0 % 79.1 E 28 329 0. 0 83.5 356.6 5 18 28.3 5 57.3 8191 F3 68/06/19 2440027 50.0 % 079.1 E 5.5 P3.5 354.6 05-18-28.3 05-05-57 .5 CJXLVFEJIP AMJA 85 -ATA TO LAKE HATHAL 329 EASTERN HAZAKH SSR 27 H191 F4 58 5 10 24440727 50.0 4 79.1 E 28 320 0. 0 83.5 354.8 5 14 28.3 5 5 57.3 8101 F4 68/06/19 2449027 50.0 % 179.1 E 5.5 A 5.5 354.A 05-18-28.3 05-05-57 .5 CJKEVOEJIR 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 28 6166 BM 68 7 1 2440030 47.9 N 47.8 E 30 357 33. 33 83.0 17.2 4 14 25.3 " 1 57.2 6166 BM 68/07/01 2440039 47.9 N 047.A E 5.5 P3.0 17.2 ٦ ٢ 04-14-25.3 04-01-57 .2 KEYLTHXCHC 30 MIDO LE EAST - CRIMEA - HOLKANS 357 SOUTHWESTERN RUSSIA 28 6166 F1 68 7 1 2440039 47.9 N 47.8 E 30 357 33. 33 83.0 17.2 4 14 25.3 4 1 57.2 6166 F1 68/07/01 2440039 47.9 N 647.8 E 5.5 17.2 P3.0

04-14-25.3

04-01-57

30 MIDN

33

LE EAST - CRIMFA - BALKANS 357 SOUTHWESTERN RUSSIA

.2 KEYLTHXCBC

28 6166 F2 68 7 1 2440039 47.9 N 47.8 E 30 357 33. 33 17.2 4 14 25.3 4 1 57.2 6166 F2 68/07/01 83.0 47.9 N 047.8 E 5.5 2440039 33 P3.0 17.2 04-14-25.3 04-01-57 .2 KFYLTHXCBC 30 MIDD LE EAST - CRIMFA - BALMANS 357 SOUTHWESTERN RUSSTA 28 6166 F3 68 7 1 2440039 47.9 N 47.8 E 30 357 33. 33 83.0 17.2 4 14 25.3 4 1 57.2 6166 F3 68/07/01 47.9 N 047.8 E 5.5 2440039 P3.0 17.2 04-14-25.3 33 04-01-57 .2 KFYLTHXCBC 30 MIDD LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA 28 6166 F4 68 7 1 2440039 47.9 N 47.8 E 30 357 33. 33 83.0 17.2 4 14 25.3 4 1 57.2 6106 F4 68/07/01 2440039 47.9 N 047.8 E 5.5 P3.0 33 17.2 04-14-25.3 04-01-57 .2 KFYLTHXCBC 30 MILLD LE EAST - CHIMFA - BALKAMS 357 SOUTHWESTERN RUSSTA 29 6347 RM 68 7 12 2440050 49.8 N 78.1 E 28 329 U. 0 83.7 357.2 12 20 29.9 12 7 57.6 6347 8M 68/07/12 2440050 49.8 1 07H.1 E 5.4 P3.7 357.2 12-20-29.9 12-07-57 0 .6 EXMPJRPLCP 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 29 6347 F1 68 7 12 2440050 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 12 20 29.9 12 7 57.6 6347 F1 68/07/12 2440050 49.8 V 078.1 E 5.4 P3.7 357.2 12-20-29.9 12-07-57 . D EXMPJPPLCP S8 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE HATKAL 29 6347 F2 68 7 12 2440050 49.8 % 78.1 E 28 329 U. 0 83.7 357.2 12 20 29.9 12 7 57.6 6347 F2 68/07/12 2440050 49.8 4 078.1 E 5.4 P3.7 **357.2** 12-20-29.9 12-07-57 .6 EXYPJPPLLP 28 ALMA -ATA TO LAKE HATKAL 324 EASTERN KAZAKH SSR 29 6347 F3 68 7 12 2440050 49.8 N 78.1 E 28 320 0. 33.7 357.2 12 20 29.9 12 7 57.6 6347 F3 68/07/12 2440050 HO.H N 078.1 E 5.4 P 3.7 357.2 12-20-29.9 12-07-57 40 JANFAMARA 4. 28 ALMA -ATA TO LAKE BAIKAL 329 EASTEPN KAZAKH SSR 29 6347 F4 68 7 12 2440050 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 12 20 29.9 12 7 57.6 6347 F4 68/07/12 2440050 49.8 N 078.1 E 5.4 357.2 P3.7 12-20-29.9 0 12-07-57 .6 EXMPJPPLCP 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 30 6543 BM 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 3 45 0.0 3 32 28.8 6543 BM 68/08/20 2440089 50.0 N 078.0 E 0.0 93.5 O 357.3 03-45-00.0 03-32-28

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xaa
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.8 TIPPJGLXWF -ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

30 6543 F1 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 3 45 0.0 3 32 28.8 6543 F1 68/08/20 2440089 50.0 N 078.0 E 0.0

0 83.5 357.3 03-45-00.0 03-32-28 28 ALMA

.8 TIPPJGLXWF -ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

30 6543 F2 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 3 45 0.0 3 32 28.8 6543 F2 68/08/20 2440089 50.0 N 078.0 E 0.0 0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF

28 ALMA

28 ALMA

-ATA TO LAKE BATKAL

329 EASTERN KAZAKH SSR

30 6543 F3 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 3 45 0.0 3 32 28.8 6543 F3 68/08/20 2440089 50.0 N 078.0 E 0.0 0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLYWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 0543 F4 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 3 45 0.0 3 32 28.8 6543 F4 68/08/20 2440089 50.0 N 078.0 E 0.0 0 83.5 357.3 03-45-00.0 03-32-28

0 P3.5 357.3 03-45-00.0 03-32+28
R TIPPJGLYWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 PM 68 9 29 2440129 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 3 55 26.9 3 42 54.6 7165 BM 68/09/29 24/0129 49.8 N 078.1 E 6.1 33 83.7 357.2 03-55-26.9 03-42-54 6 JGPDROTCXL 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP

31 7165 F1 68 9 29 2440129 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 3 55 26.9 3 42 54.6 7165 F1 68/09/29 2440129 49.8 N 078.1 E 6.1 33 83.7 357.2 03-55-26.9 03-42-54

33 83.7 357.2 03-55-26.9 03-42-54
.6 JGPDHOTCXL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F2 68 9 29 2440129 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 3 55 26.9 3 42 54.6 7165 F2 68/09/29 2440129 49.8 N 078.1 E 6.1 33 83.7 357.2 03-55-26.9 03-42-54

-6 JGPDROTCKL 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F3 68 9 29 2440129 49.8 N 78.1 E 28 329 33. 33 83.7 357.2 3 55 26.9 3 42 54.6 7165 F3 68/09/29 2440129 49.8 N 078.1 E 6.1

33 P3.7 357.2 03-55-26.9 03-42-54 b JGPDROTCKL 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F4 68 9 29 2440129 49.8 N 78.1 E 28 329 33. 33

.6

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83.7 357.2 3 55 26.9 3 42 54.6 7165 F4
                                            68/09/29
 2440129 49.8 N 078.1 E 6.1
                  P3.7
                           357.2
                                 03-55-26.9
                                             03-42-54
              33
    JGPDRDTC*L
                                               28 ALMA
-ATA TO LAKE HAIKAL
                          329 EASTERN KAZAKH SSR
32 7292 8M 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
  59.4 6.2 10 12 12.1 10 2 5.1 7292 BM
                                            68/11/07
 2440168
          73.4 N
                 054.9 E 6.0
                  59.4
                            6.2
                                  10-12-12.1
                                             10-02-05
.1 BMXEGLIRID
                                               40 ARCT
IC ZONE
                          648 NOVAYA ZEMLYA
32 7292 F1 68 11 7 2440168 73.4 N 54.9 E 40 648 0.
         6.2 10 12 12.1 10 2 5.1 7292 F1
  59.4
                                            68/11/07
 244016A
          73.4 N
                 054.9 E 6.0
                  59.4
                           6.2
               0
                                 10-12-12.1
                                              10-02-05
.1 BMXEGLIPID
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                  83.7 357.3 03-06-29.9
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    ILTHZJUYIG
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329 EASTERN KAZAKH SSR

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-ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR

33 7358 F4 68 11 9 2440170 49.8 N 78.0 E 28 329 0. 0 83.7 357.3 3 6 29.9 2 53 57.6 7358 F4 68/11/09 2440170 49.8 N 078.0 E 4.9 0 83.7 357.3 03-06-29.9 02-53-57 6 ILTHZJOXIG 28 ALMA

.6 ILTHZJOXIG
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-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 F1 68 12 18 2440209 49.7 N 78.1 E 28 329 0. 0 83.8 357.2 5 14 29.7 5 1 56.7 7489 F1 68/12/18 2440209 49.7 N 078.1 E 5.2 0 83.8 357.2 05-14-29.7 05-01-56

.7 HMLTXTERID 28 ALMA
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34 7489 F2 68 12 18 2440209 49.7 N 78.1 E 28 329 0. 0 83.8 357.2 5 14 29.7 5 1 56.7 7489 F2 68/12/18 2440209 49.7 N 078.1 E 5.2 0 83.8 357.2 05-14-29.7 05-01-56

0 83.8 357.2 05-14-29.7 05-01-56 .7 HMLTXTEPID 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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-ATA TO LAKE BAIKAL

49.8 N 078.1 E 5.5 2440288 08-39-29.7 08-26-57 83.7 357.2 O .4 YKUSSMLXCM 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 35 7558 F2 69 3 7 2440288 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 8 39 29.7 R 26 57.4 7558 F2 69/03/07 2440288 49.8 N 078.1 E 5.5 08-39-29.7 08-26-57 P3.7 357.2 .4 YKUSSMLYCM 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 35 7558 F3 69 3 7 2440288 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 8 39 29.7 8 26 57.4 1558 F3 69/03/07 2440288 49.8 N 078.1 E 5.5 08-39-29.7 08-26-57 357.2 83.7 28 ALMA .4 YKUSSMLXCM 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 3 7 2440288 49.8 N 78.1 E 28 329 0. 0 35 7558 F4 69 83.7 357.2 8 39 29.7 8 26 57.4 7558 F4 69/03/07 49.8 N 078.1 E 5.5 2440288 08-39-29.7 08-26-57 0 83.7 357.2 28 ALMA .4 YKUSSMLXCM 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 36 1390 RM 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 15 29.3 4 2 57.0 1390 8M 69/05/16 2440358 49.8 N 078.1 E 5.3 357.2 04-15-29.3 04-02-57 P3.7 ٥ .O LJWTTTRXDD 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 36 1390 F1 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 15 29.3 4 2 57.0 1390 F1 69/05/16 2440358 49.8 N 078.1 E 5.3 P 5.7 357.2 04-15-29.3 04-02-57 .O LJWTTTRXDD 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 36 1390 F2 59 5 16 2440358 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 15 29.3 4 2 57.0 1390 F2 69/05/16 2440358 49.8 N 078.1 E 5.3 04-15-29.3 357.2 04-02-57 0 P3.7 28 ALMA .O LJWTTTRXDD 329 EASTERN KAZAKH SSR -ATA TO LAKE BAJKAL 36 1390 F3 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 15 29.3 4 2 57.0 1390 F3 69/05/16 2444358 49.8 N 078.1 E 5.3 P3.7 357.2 04-15-29.3 04-02-57 .0 LJWTTTRYDD AMJA 85 329 EASTERN KAZAKH SSP -ATA TO LAKE BATKAL 36 1390 F4 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 15 29.3 4 2 57.0 1390 F4 69/05/16 2440358 49.8 N 078.1 E 5.3 357.2 04-15-29.3 04-02-57 P3.7 28 ALMA .O LJWTTTRYDD 329 EASTERN KAZAKH SSR

37 7661 BM 69 5 31 2440373 50.0 N 77.7 E 28 7c 0. 0 83.5 357.5 5 14 27.8 5 1 56.5 7661 RM 59/05/31 50.0 N 077.7 E 5.4 2440373 83.5 357.5 05-14-27.8 05-01-56 .5 FLCGTXFEBH 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 37 7661 F1 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 5 14 27.8 5 1 56.5 7661 F1 69/05/31 2440373 50.0 N 077.7 E 5.4 357.5 P3.5 05-14-27.8 05-01-56 0 .5 FLCGTXFEBH SA VEWY 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 37 7661 F2 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 5 14 27.8 5 1 56.5 7661 F2 69/05/31 2440373 50.0 N 077.7 E 5.4 357.5 05-14-27.8 05-01-56 P3.5 .5 FLCGTXFFBH 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 37 7661 F2 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 83.5 357.5 5 14 27.8 5 1 56.5 7661 F2 69/05/31 2440373 50.0 N 077.7 E 5.4 0 83.5 357.5 05-14-27.8 05-01-56 28 ALMA .5 FLOGTXFFAH 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 37 7661 F3 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 5 14 27.8 5 1 56.5 7661 F3 69/05/31 2440373 50.0 N 077.7 E 5.4 357.5 05-14-27.8 05-01-56 0 P3.5 .5 FLCGTXFFBH SR ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 38 1502 BM 69 7 4 2440407 49.7 N 78.? E 28 329 0. 0 83.8 357.1 2 59 29.7 2 46 56.7 1502 RM 69/07/04 2440407 49.7 N 078.2 E 5.3 357.1 02-59-29.7 P3.8 02-46-56 .7 EHURXMLYNP 28 ALMA 329 EASTERN KAZAKH SSP -ATA TO LAKE BAIKAL 38 1502 F1 69 7 4 2440407 49.7 N 78.2 E 28 329 0. 0 83.8 357.1 2 59 29.7 2 46 56.7 1502 F1 69/07/04 2440407 44.7 N 078.2 E 5.3 357.1 02-59-29.7 02-46-56 0 83.8 .7 EHOPXMLYNR 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 38 1502 F2 69 7 11 2440407 49.7 N 78.2 E 28 329 0. 0 83.8 357.1 2 59 29.7 2 46 56.7 1502 F2 69/07/04 2440407 49.7 N U78.2 E 5.3 P3.8 357.1 02-59-29.7 02-40-56 .7 EHOPXMLYAP 24 ALS . 329 FESTERN KAZAKH KOR -ATA TO LAKE HAIKAL

NAVAL POSTGRADUATE SCHOOL MONTEREY CA F/6 17/10 APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U) JUN 77 C E IRVINE NEW PS-521R77061 NL AD-A107 584 UNCLASSIFIED 6 nr 7 AD A10758 b

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 41 1695 F2 69 9 26 2440491 45.8 N 42.5 E 30 357 U. 0
  83_A
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          45.8 N 042.5 E 5.6
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                           21.4
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LE EAST - CRIMEA - BALKAMS 357 SOUTHWESTERN RUSSIA
 41 1695 F3 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
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LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN PUSSTA
41 1695 F4 69 9 26 2440491 45.8 N 42.5 E 30 357 0. O
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 42 1741 BM 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
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         49.8 N 078.1 E 5.3
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                  P3.7
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                                               28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
44 1774 F2 69 11 30 2440556 49.9 N 79.0 E 28 329 0.
  83.6 356.6 3 45 28.7 3 32 57.1 1774 F2 69/11/30
 2440556 49.9 N 079.0 E 6.0
                   P3.6
                                 03-45-28.7
                          356.6
                                              03-32-57
.I WXKPHKEFEL
                                               28 ALMA
                          329 EASTEPN KAZAKH SSR
-ATA TO LAKE BAIKAL
44 1774 F3 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
  83.6 356.6 3 45 28.7 3 32 57.1 1774 F3 69/11/30
         49.9 N 079.0 E 6.0
 2440556
                   A3.6
                                  03-45-28.7
                                              03-32-57
                           356.6
                                               28 ALMA
.1 WXKPHKEFEL
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
44 1774 F4 69 11 30 2440556 49.9 N 79.0 E 28 329 0.
  83.6 356.6 3 45 28.7 3 32 57.1 1774 F4
                                            69/11/30
 2440556 49.9 N 079.0 E 6.0
                   93.6
                           356.6
                                  03-45-28.7
                                              03-32-57
.1 NXKPHKEFEL
                                               AMJA 85
-ATA TO LAKE SAIKAL
                          329 EASTERN KAZAKH SSR
 45 2019 RM 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
  88.3 13.6 7 15 52.0 7 2 57.7 2019 BM 69/12/06
         43.8 N
                 054.8 E
                            5.8
 2440562
                   P8.3
                                   07-15-52.0
                                              07-02-57
                            13.6
.7 RIELEVOTXR
                                               29 WEST
ERN ASIA
                          336 WESTERN KAZAKH SSR
 45 2019 F1 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
  88.3 13.6 7 15 52.0 7 2 57.7 2019 F1
                                             99/15/06
                 054.8 E 5.8
  2440562
         43.8 N
                                   07-15-52-0
                   P8.3
                                              07-02-57
               0
                            13.6
.7 RIELEVOTXR
                                               29 WEST
                          336 WESTERN KAZAKH SSR
ERN ASTA
 45 2019 F2 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
  88.3 13.6 7 15 42.0 7 2 57.7 2019 F2 69/12/06
                  054.A E
                            5.8
 2440562
          43.8 N
                                 07-15-52.0
                   PH.3
                            13.6
                                              07-02-57
.7 RIELEVOTXP
                                               29 WEST
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ERN ASTA

xaa

336 WESTERN KAZAKH SSR

45 2019 F3 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 13.6 7 15 52.0 7 2 57.7 2019 F3 69/12/06 88.3 2440562 43.8 N 054.8 E 5.8 P8.3 13.6 07-15-52.0 07-02-57 0 RIELEVDTXR 29 WEST 336 WESTERN KAZAKH SSP ERM ASIA 45 2019 F4 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0 13.6 7 15 52.0 7 2 57.7 2019 F4 69/12/06 88.3 2440562 43.8 N 054.8 E 5.8 07-15-52.0 07-02-57 0 88.3 13.6 .7 RIELEVDIXR 29 WEST FRN ASTA 336 WESTERN KAZAKH SSR 46 2267 RM 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 83.5 357.5 3 59 29.2 3 46 57.9 2267 RM 69/12/28 2440584 50.0 N 077.7 E 5.7 357.5 A3.5 03-59-29.2 0 03-46-57 .9 JOTZLTZDXG 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 46 2267 F1 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 3 59 29.2 3 46 57.9 2267 F1 69/12/28 2440584 50.0 N 077.7 E 5.7 357.5 9 A3.5 03-59-29.2 03-46-57 .9 JCT7LT2DxG 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 46 2267 F2 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 3 59 29.2 3 46 57.9 2267 F2 69/12/28 2440584 50.0 N 077.7 E 5.7 A3.5 357.5 03-59-29.2 03-46-57 .9 JCT7LTZDXG AMJA 85 -ATA TO LAKE BAIKAL 329 EASTEPN KAZAKH SSR 46 2267 F3 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 3 59 29.2 3 46 57.9 2267 F3 69/12/28 2440584 50.0 N 077.7 E 5.7 P3.5 357.5 03-59-29.2 03-46-57 JCTZLTZDXG 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 46 2267 F4 69 12/28 2440584 50.0 N 77.7 E 28 329 U. 0 63.5 357.5 3 59 29.2 3 46 57.9 2267 F4 69/12/28 2440584 50.0 N 077.7 E 5.7 357.5 A3.5 03-59-29.2 03-46-57 .9 JOTZLTZDXG 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 47 2272 8% 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 83.7 357.2 4 14 30.9 4 1 58.6 2272 BM 69/12/29 49.8 N 078.1 E 4.6 2440585 357.2 04-14-30.9 P3.7 04-01-5A WMLWOYXRHE 28 ALMA - 6 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 47 2272 F1 69 12 29 2400585 49.8 N 78.1 E 29 329 0. 0

83.7 357.2 4 14 30.9 4 1 58.6 2272 F1 69/12/29

2440585 49.8 N 078.1 E 4.6 P3.7 357.2 04-14-30.9 0 04-01-58 28 ALMA WMLWOYXRHE • 6 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 47 2272 F2 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 0 357.2 4 14 30.9 4 1 58.6 2272 F2 69/12/29 83.7 2440585 49.8 N 078.1 E 4.6 357.2 04-14-30.9 04-01-58 83.7 0 .6 WMEWOYXRHE 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 47 2272 F3 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 14 30.9 4 1 58.6 2272 F3 69/12/29 2440585 49.8 N 078.1 E 4.6 357.2 04-14-30.9 P3.7 04-01-58 .6 AMLWOYXRHE 28 ALMA -ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR 47 2272 F4 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 14 30.9 4 1 58.6 2272 F4 69/12/29 2440585 49.8 N 078.1 E 4.6 83.7 357.2 04-14-30.9 04-01-58 .6 WMLWOYXRHF 28 ALMA 329 EASTERN KAZAKH SSP -ATA TO LAKE BAIKAL 48 2462 BM 70 7 24 2440792 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 9 29.6 3 56 57.3 2462 PM 70/07/24 2440792 49.8 N 078.1 E 5.3 P3.7 357.2 04-09-29.6 03-56-57 0 .3 VIJALEXCER SH ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 48 2402 F1 70 7 24 2440792 49.8 N 78.1 E 28 329 U. 0 83.7 357.2 4 © 29.6 3 56 57.3 2462 F1 70/07/24 2440792 49.8 N 078.1 E 5.3 357.2 04-09-29.6 0 P3.7 03-56-57 .3 VIJELEXCER S8 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 48 2462 F2 70 7 24 2440792 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 9 29.6 3 56 57.3 2462 F2 70/07/24 2440792 49.8 N 078.1 E 5.3 0 83.7 357.2 04-09-29.6 03-56-57 .3 VIJBLEXCEB AMJA 85 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 48 2462 F3 70 7 24 2440792 49.8 N 78.1 E 28 329 0. 0 33.7 357.2 4 9 29.6 3 56 57.3 2462 F3 70/07/24 2440792 49.8 N 078.1 E 5.3 83.7 357.2 04-09-29-6 07-56-57 .3 VIJBLEXCER 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 48 2462 F4 70 7 24 2440792 49.8 N 78.1 E c8 329 0. 0 83.7 357.2 4 9 29.6 3 56 57.3 2462 F4 70/07/24 2440792 49.8 N 078.1 E 5.3

0 P3.7

.3 VIJBLEXCEP

-ATA TO LAKE BAIKAL

357.2

04-09-29.6

329 EASTERN KAZAKH SSR

03-56-57

28 ALMA

49 8817 BM 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 357.5 4 15 28.8 4 2 57.5 8817 8M 71/06/06 83.5 50.0 N 077.7 E 5.5 2441109 357.5 04-15-28.8 04-02-57 P3.5 0 28 ALMA .5 RMJXLSHGUE 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 49 8817 F1 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 15 28.8 4 2 57.5 8H17 F1 71/06/06 2441109 50.0 N 077.7 E 5.5 P3.5 04-02-57 357.5 04-15-28.8 28 ALMA RMJXLSHGUE 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 49 8817 F2 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 15 28.8 4 2 57.5 8817 F2 71/06/06 5.5 077.7 E 2441109 50.0 N 357.5 04-15-28.8 04-02-57 0 83.5 28 ALMA .5 RMJXLSHGUE 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 49 8817 F3 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 15 28.8 4 2 57.5 8817 F3 71/06/06 2441109 50.0 N U77.7 E 5.5 357.5 04-15-28.8 04-02-57 P3.5 28 ALMA .5 RMJXLSHGUE 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 49 8817 F4 71 6 6 24/11/09 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 4 15 28.8 4 2 57.5 8817 F4 71/06/06 5.5 2441109 50.0 N 077.7 E 357.5 04-15-28.8 04-02-57 R3.5 28 ALMA .5 RMJYLSHGUE 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIMAL 50 8835 BM 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0 83.6 356.6 4 9 28.7 3 56 57.1 8835 RM 71/06/30 49.9 N 079.0 E 5.4 2441133 04-09-28.7 03-56-57 P3.6 356.6 28 ALMA .1 XGLHEOUZZV 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 50 8835 F1 7! 6 30 2441133 49.9 N 79.0 E 28 329 0. 0 83.6 356.6 4 9 28.7 3 56 57.1 8835 F1 71/06/30 2441133 49.9 N 079.0 E 5.4 04-09-28.7 03-56-57 0 83.6 356.6 28 ALMA .1 XGLHENOZZV 329 EASTERN KAZAKH SSR -ATA TO LAKE HAIKAL 50 8835 F2 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0 83.6 356.6 4 9 28.7 3 56 57.1 8835 F2 71/06/30 2441133 49.9 N 079.0 E 5.4 03-56-57 P3.6 356.6 04-09-28.7 SR MEWA .1 AGLHEOUZZV 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 50 8835 F3 71 6 30 2441133 49.4 N 79.0 E 28 329 0. 0 83.6 356.6 4 9 28.7 3 56 57.1 8835 F3 71/06/30

2441133 49.9 N 079.0 F 5.4

ERN ASTA

04-09-28-7 0 P3.6 356.6 03-56-57 . 1 XGLHE007ZV 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 50 8835 F4 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0 83.6 356.6 4 9 28.7 3 56 57.1 8835 F4 71/06/30 49.9 N 079.0 E 5.4 2441133 83.6 04-09-28.7 03-56-57 0 356.6 .1 XGLHEOD7ZV 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 51 8837 BM 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33 4.3 17 10 46.5 16 59 56.5 8837 BM 66.0 71/07/02 67.3 N 063.5 E 4.4 2441135 33 66.0 4.3 17-10-46-5 16-59-56. 5 UDESXLMUOZ 29 WESTE RN ASIA 335 URAL MOUNTAINS REGION 51 8837 F1 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33 4.3 17 10 46.5 16 59 56.5 8837 F1 71/07/02 66.0 67.3 N 063.5 E 4.4 2441135 16-59-56 33 66.0 4.3 17-10-46.5 •5 UDESXLMU07 29 WEST ERN ASIA 335 URAL MOUNTAINS PEGION 51 8837 F2 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33 4.3 17 10 46.5 16 59 56.5 8837 F2 71/07/02 66.0 67.3 N 063.5 E 4.4 2441135 16-59-56 17-10-46.5 33 4.3 60.0 29 WEST .5 UDESXLMUOZ 335 URAL MOUNTAINS REGION ERN ASIA 51 8837 F3 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33 4.3 17 10 46.5 16 59 56.5 8837 F3 71/07/02 063.5 E 2441135 67.3 N 4.4 16-59-56 4.3 17-10-46.5 .5 UDESKLMUUZ 29 WEST ERN ASIA 335 UPAL MOUNTAINS REGION 51 8837 F4 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33 4.3 17 10 46.5 16 59 56.5 8837 F4 71/07/02 66.0 2441135 67.3 N 063.5 E 4.4 16-59-56 33 4.3 17-10-46.5 66.0 .5 UDESXLMUOZ 29 WEST FRN ASIA 335 URAL MOUNTAINS REGION 52 9218 RM 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0 68.5 A.6 17 11 5.6 16 59 59.5 9218 RM 71/07/10 U55.3 E 5.3 2441143 64.1 N 17-11-05.6 16-59-59 0 68.5 8.6 .5 UVFFVXWBLC 29 WEST 335 URAL MOUNTAINS REGION ERN ASIA 52 9218 F1 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0 68.5 8.6 17 11 5.6 16 59 59.5 9218 F1 71/07/10 2441143 64.1 N 055.3 E 5.3 16-59-59 17-11-05.6 0 68.5 8.6 .5 UVFFVYWBLC 29 WEST

335 URAL MOUNTAINS REGION

2441229

52 9218 F2 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 8.6 17 11 5.6 16 59 59.5 9218 F2 71/07/10 68.5 64.1 N 055.3 € 5.3 2441143 16-59-59 17-11-05-6 68.5 8.6 UVFFVXWBLC 29 WEST .5 335 URAL MOUNTAINS REGION FRN ASTA 52 9218 F3 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 8.6 17 11 5.6 16 59 59.5 9218 F3 71/07/10 68.5 2441143 64.1 N 055.3 E 5.3 16-59-59 68.5 8.6 17-11-05.6 29 WEST .5 UVFFVXWBLC 335 URAL MOUNTAINS REGION FRN ASIA 52 9218 F4 71 7 10 2441143 54.1 N 55.3 E 29 335 0. 0 8.6 17 11 5.6 16 59 59.5 9218 F4 71/07/10 055.3 E 5.3 2441143 64.1 N 17-11-05.6 16-59-59 0 68.5 8.6 29 WEST .5 UVFFVXWBLC 335 URAL MOUNTAINS REGION FRN ASIA 53 8713 BM 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 17.6 11 11 31.6 11 0 2.0 8713 RM 71/09/19 72.3 4.5 2441214 57.8 N 041.1 E 11-11-31.6 11-00-02 33 72.3 17.6 49 NORT .O FSLMVFXWED 724 WESTERN RUSSIA HERN ASIA 53 8713 F1 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33 71/09/19 72.3 17.6 11 11 31.6 11 0 2.0 8713 F1 4.5 57.8 N 041.1 E 2441214 11-00-02 17.6 11-11-31.6 33 72.3 49 NORT .0 FSLMVFXWED 724 WESTERN RUSSIA HERN ASIA 53 8713 F2 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33 72.3 17.6 11 11 31.6 11 0 2.0 8713 F2 71/09/19 57.8 N 041.1 E 4.5 2441214 11-00-02 72.3 17.6 11-11-31.6 33 .O FSLMVFXWED 49 NORT 724 WESTERN RUSSIA HERN ASIA 53 8713 F3 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33 72.3 17.6 11 11 31.6 11 0 2.0 8713 F3 71/09/19 4.5 2441214 57.8 N 041.1 E 11-00-02 17.6 11-11-31.6 33 72.3 49 NORT .0 FSLMVFXMED 724 WESTERN RUSSIA HERN ASIA 53 8713 F4 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33 17.6 11 11 31.6 11 0 2.0 8713 F4 71/09/19 12.3 041.1 E 57.8 N 4.5 2441214 11-00-02 33 72.3 17.6 11-11-31.6 .O FSLMVFXWED 49 NORT 724 NESTERN RUSSIA HERN ASIA 54 9136 BM 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13 69.9 13.2 10 11 15.0 10 0 .9 9136 RM 71/10/04 2441229 61.6 N 047.1 E 5.1

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69.9
                          13.2 10-11-15.0
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              13
.9 MHSXWUIWDL
                                               49 NORT
HERN ASIA
                          724 WESTERN RUSSIA
 54 9136 F1 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
  69.9 13.2 10 11 15.0 10 0 .9 9136 F1 71/10/04
  2441229
          61.6 N 047.1 E
                           5.1
              13
                   69.9
                            13.2 10-11-15.0
                                              10-00-00
. 9
    MHSXWUIWDL
                                               49 NORT
HERN ASIA
                          724 WESTERN RUSSIA
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  69.9 13.2 10 11 15.0 10 0 .9 9136 F2 71/10/04
  2441229
         61.6 N 047.1 E 5.1
             13
                   69.9
                           13.2
                                 10-11-15.0
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.9 MHSXWUIWDL
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HERN ASIA
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54 9136 F3 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
  69.9 13.2 10 11 15.0 10 0 .9 9136 F3 71/10/04
  2441229
         61.6 N 047.1 E 5.1
                   69.9
                           13.2 10-11-15.0 10-00-00
              13
.9 MHSXWUIWDL
                                              49 NORT
HERN ASIA
                         724 WESTERN RUSSIA
54 9136 F4 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
  69.9 13.2 tu 11 15.0 10 0 .9 9136 F4
                                            71/10/04
 2441229
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             13
                  69.9
                           13.2 10-11-15.0
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                                               49 NORT
HERN ASIA
                          724 NESTERN RUSSIA
55 9253 BM 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
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  2441234 50.0 N 077.0 E 5.4
                          357.9
                                 06-15-28.8
                                              06-02-57
                   Р3.6
.4 IXZKSOUTYL
                                               28 ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
55 9253 F1 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
  83.6 357.9 6 15 28.8 6 2 57.4 9253 F1 71/10/09
  2441234 50.0 N 077.0 E 5.4
                   P3.6
                          357.9
                                 06-15-28.8
                                              06-02-57
.4 IXZKSOUTYL
                                              SH ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
 55 9253 F2 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
  83.6 357.9 6 15 28.8 6 2 57.4 9253 F2 71/10/09 2441234 50.0 N 077.0 E 5.4
                  A 3.6
                           357.9
                                 06-15-28.8
                                            06-02-57
               O
.4 IXZKSOUTYL
                                               28 ALMA
-ATA TO LAKE BAIKAL
                          329 EASTERN KAZAKH SSR
55 9253 F3 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
  83.6 357.9 6 15 28.8 6 2 57.4 9253 F3 71/10/09
  2441234 50.0 N 077.0 E
                           5.4
                          357.9 06-15-28.8
                   Р3.6
                                              06-02-57
.4 IXZKSCUTYL
                                               28 ALMA
-ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
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55 9253 F4 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0 83.6 357.9 6 15 28.8 6 2 57.4 9253 F4 71/10/09 50.0 N 077.0 E 2441234 5.4 357.9 06-15-28.8 A3.6 06-02-57 IXZKSOUTYL 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 56 9222 BM 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0 83.6 357.9 6 15 29.0 6 2 57.6 9222 BM 71/10/21 2441246 50.0 N 077.0 E 5.6 83.6 357.9 06-15-29-0 06-02-57 0 .6 ZXGUDBLGDK 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP 56 9222 F1 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0 83.6 357.9 6 15 29.0 6 2 57.6 9222 F1 71/10/21 2441246 50.0 N 077.0 E 5.6 357.9 06-15-29.0 A3.6 06-02-57 .6 ZYGUDPLGDK 28 ALMA 329 EASTERN KAZAKH SSR -ATA TO LAKE BAIKAL 56 9227 F2 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0 83.6 357.9 6 15 29.0 6 2 57.6 9222 F2 71/10/21 2441246 50.0 N 077.0 E 5.6 357.9 06-15-29.0 06-02-57 P3.6 .6 ZXGUDBLGDK 28 ALMA -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 56 9222 F3 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0 83.6 357.9 6 15 29.0 6 2 57.6 9222 F3 71/10/21 2441246 50.0 M 077.0 F 5.6 357.9 06-02-57. 83.6 06-15-29.0 6 ZXGUDBLGDK 28 ALMA-ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR 56 9222 F4 71 10 21 2441246 50.0 N 77.0 E 28 329 V. 0 83.6 357.9 6 15 29.0 6 2 57.6 9222 F4 71/10/21 2441246 50.0 N 077.0 E 5.6 357.9 06-15-29.0 83.6 06-02-57. 0 28 ALMA-ZXGUDALGDK ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR 57 9223 RM 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 80.7 12.0 5 12 16.0 4 59 59.4 9223 BM 71/10/22 51.5 N 2441247 054.5 F 5.3 12.0 80.7 05-12-16.0 04-59-59. 6 4 FLXYEHYFYY 49 NORTH FRN ASTA 724 WESTERN RUSSIA 57 9223 F1 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6 12.0 5 12 16.0 4 59 59.4 9223 F1 90.7 71/10/22 51.5 M 054.5 F 5.3 6 80.7 12.0 05-12-16.0 04-59-59. 4 FLXYEHYFYY 49 NORTH ERN ASTA 724 WESTERN RUSSIA 57 9223 F2 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 80.7 12.0 5 12 16.0 4 59 59.4 9223 F2 71/10/22 51.5 N 054.5 E 5.3 6 80.7 12.0 2441247 05-12-16.0 04-59-59

xaa

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49 NORTH
4 FLXYEHYFYY
                          724 WESTERN RUSSTA
ERN ASIA
57 9223 F3 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
 80.7 12.0 5 12 16.0 4 59 59.4 9223 F3
                                            71/10/22
         51.5 N
                 054.5 F 5.3
 2441247
                          12.0 05-12-16.0
                                             04-59-59.
                  80.7
4 FLXYEHYFYY
                                              49 NORTH
                          724 WESTERN RUSSIA
FRN ASTA
57 9223 F4 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
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                                            71/10/22
 80.7
          51.5 N
                054.5 E 5.3
 2441247
                                  05-12-16.0
                                             04-59-59-
                  8n.7
                           12.0
              6
                                               49 NORTH
4 FLXYFHYFYY
                         724 VESTERN RUSSIA
ERN ASIA
 58 9226 8M 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 6 15 29.9 6 2 56.9 9226 BM
                                            71/11/29
 2441285 49.7 N 078.1 F 5.5
                  83.8 357.2 06-15-29.9
                                              06-02-56.
                                               SE ALMA-
LXGIPTGTFS
                         329 EASTERN KAZAKH SSR
ATA TO LAKE BAIKAL
 58 9226 F1 71 11 29 24/1285 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 6 15 29.9 0 2 56.9 9226 F1 71/11/29
 2441285 49.7 N 078.1 F 5.5
                                             06-02-56.
                         357.2
                                  06-15-29.9
              n 83.8
                                               28 ALMA-
9 LXGIPTGTES
                         329 EASTERN KAZAKH SSR
ATA TO LAKE PATKAL
 58 9226 F2 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 6 15 29.9 6 2 50.9 9226 F2 71/11/29
 2441285 49.7 N 078.1 E 5.5
               0 83.8
                         357.2 06-15-29.9
                                             06-02-56.
                                               SA ALMA-
Q LXGIPIGIFS
                          329 FASTERN KAZAKH SSR
ATA TO LAKE BATKAL
 58 9226 F3 71 11 29 2441285 49.7 N 78.1 E 28 329 0. P3.8 357.2 6 15 29.9 6 2 56.9 9226 F3 71/11/29
 2441285 49.7 M 078.1 F
                            5.5
               0 FT. P 357.2
                                  06-15-29.9 06-02-56.
4 LXGIPTGTES
                                               28 ALMA-
                          329 FASTERN KAZAKH SSR
ATA TO LAKE RATKAL
 58 9726 F4 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
 A3.8 357.2 6 15 29.9 6 2 56.9 9226 F4 71/11/29
 2441285 49.7 N 078.1 F n 83.8
                           5,5
                          357.2 06-15-29.9 06-02-56.
                                              SH VENT-
9 LXGIPTGTES
ATA TO LAKE RATKAL
                          329 FASTERN KAZAKH SSR
 59 9336 FM 71 12 27 2441348 47.8 N 48.2 F 29 336 0. 0
 A3.2 17.0 7 12 25.8 6 59 56.7 9336 BM
                                            71/12/22
        47.8 M 048.2 F 6.0
 2441308
               0 83.2
                          17.0
                                  07-12-25.8 06-59-56.
                                               29 WESTE
  PXJDTUVTLZ
7
PN ASIA
                          336 NESTERN KAZAKH SSR
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59 9336 F1 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0

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43.2
        17.0 7 12 25.8 6 59 56.7 9336 F1 71/12/22
                 04P.2 F 6.0
2441308
          47.A N
                   83.2
                           17.0
                                   07-12-25.A
                                                10-59-56.
   PXJDTUVTLZ
                                                29 WESTE
RN ASIA
                           336 WESTERN KAZAKH SSR
59 9336 F2 71 12 22 2441308 47.8 N 48.2 £ 29 336 0.
         17.0 7 12 25.8 6 59 56.7 9336 F2 71/12/22
          47.8 N
                   048.2 F 6.0
                   83.2
                            17.0
                                   07-12-25.8
                                                00-59-50.
7 PXJUTUVILZ
                                                29 WESTE
RN ASIA
                           336 WESTERN KAZAKH SSR
59 9336 F3 71 12 22 2441308 47.8 N 48.2 E 29 336 0.
        17.0 7 12 25.8 6 59 56.7 9336 F3
                                             71/12/22
        47 . R N
                 048.2 E 6.0
 2441308
                  83.2
                                   8.75-S1-70
                                                06-59-56.
                           17.0
   PXJUTUVILZ
                                                29 WESTF
PN ASIA
                          336 WESTERN KAZAKH SSR
59 9336 F4 71 12 22 2441308 47.8 N 48.2 E 29 336 0.
        17.0 7 12 25.8 6 59 56.7 9336 F4
                                            71/12/22
         47.8 N
                 048.2 F 6.0
 2441308
                   43.2
                                               00-59-50.
               Λ
                                   07-12-25.8
                            17.0
7 PXJOTUVILZ
                                                 29 WESTE
RN ASIA
                          336 WESTERN KAZAKH SSR
 60 9339 BM 71 12 30 2441316 47.9 N 78.1 E 28 329 U. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 BM 71/12/30
 2441316 47.9 N 078.1 F 5.8
                          357.1
                  A5 6
                                                06-20-48.
               0
                                 06-33-30-6
5 EXLKKEEZTR
                                                ZA ALMA-
ATA TU LAKE BATKAL
                          329 FASTERN KAZAKH SSR
60 9339 F1 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 5 20 48.5 9339 F1 71/12/30
        47.9 M
 2441310
                 078.1 E 5.8
                           357.1
                  45.5
                                   06-33-30.6
                                               06-20-48.
5 EXLYKFEZTR
                                                 ZA ALMA-
ATA TO LAKE BATKAL
                          329 EASTERN KAZAKH SSR
60 9339 F2 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F2 71/12/30
 2441316 47.9 M
                 078.1 F 5.8
                           357.1
                                                06-20-48-
                   85.5
                                   06-33-30-6
5 EXLKKFEZTR
                                                 28 ALMA-
ATA TO LAKE BATKAL
                          329 EASTERN KAZAKH SSR
60 9339 F3 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0 85.6 357.1 6 33 30.6 6 20 48.5 9339 F3 71/12/30
         47.9 1.
                 078.1 F
                            5. R
 2441310
                 85.6
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               O
                                   06-33-30.6
                                                06-20-48.
5 EXEKKEEZTR
                                                 SH VENY-
ATA TO LAKE BATKAL
                          329 FASTERN KAZAKH SSR
 60 9339 F4 71 12 30 2441316 47.9 N 78.1 F 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F4
                                             71/12/30
2441316 47.9 M 078.1 F 5.8
0 85.6 357.1 06-33-50.6
                                                06-20-48.
5 EXLKKEFZIR
                                                 ZR ALMA-
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ATA TO LAKE BATKAL

329 EASTERN KAZAKH SSR

61 9788 RM 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0 83.5 356.6 5 15 28.8 5 2 57.8 9788 BM 72/02/10 2441358 50.0 N 079.0 E 5.5 0 83.5 356.6 05-15-28.8 05-02-57. 8 GEECLIMICIS

A GEECLXWCIS ATA TO LAKE BAIKAL

329 EASTERN KATAKH SSR

61 9788 F1 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0 83.5 350.6 5 15 28.8 5 2 57.8 9788 F1 72/02/10 2441358 50.0 N 079.0 F 5.5 0 83.5 356.6 05-15-28.8 05-02-57.

0 83.5 356.6 05-15-28.8 05-02-57.

8 GEECLXWCIS 28 ALMAATA TO LAKE BAIKAL 329 FASTERN KAZAKH SSR

61 9788 F2 72 2 10 2441359 50.0 N 79.0 E 28 329 0. 0 83.5 356.6 5 15 28.8 5 2 57.8 9788 F2 72/02/10 2441358 50.0 N 079.0 F 5.5

0 83.5 356.6 05-15-28.8 05-02-57.

8 GEECLXWCTS 28 ALMAA1A TO LAKE BATKAL 329 EASTERN KAZAKH SSR

61 9788 F3 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0 83.5 356.6 5 15 28.8 5 2 57.8 9788 F3 72/02/10 2441358 50.0 N 079.0 E 5.5

0 83.5 356.6 05-15-28.8 05-02-57.

P GEECLXWCIS 28 ALMAATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR

61 9788 F4 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0 83.5 356.6 5 15 28.8 5 2 57.8 9788 F4 77/02/10 2441358 50.0 N 079.0 F 5.5 0 83.5 356.6 05-15-28.8 05-02-57.

R GEFCLXWCIS

ATA TO LAKE RATKAL

329 FASTERN KAZAKH SSR

62 9791 BM 72 3 10 2441387 50.0°N 78.0 E 28 329 0. 0 93.5 357.3 5 9 30.2 4 56 59.0 9791 BM 72/03/10 2441387 50.0 N 078.0 E 5.5

0 83.5 357.3 05-09-30.2 04-56-59.
0 DXLVJJYZMZ 28 ALMAATA TO LAKE BATKAL 329 EASTERN KAZAKH SSP

62 9791 F1 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 5 9 30.2 4 56 59.0 9791 F1 72/03/10 2441387 50.0 N 078.0 F 5.5

0 83.5 357.3 05-09-30.2 04-56-59.
0 0xLVJJYZMZ 28 ALMAATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR

62 9791 F2 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 5 9 30.2 4 56 59.0 9791 F2 72/03/10 2441387 50.0 M 078.0 F 5.5

0 83.5 357.3 05-09-30.2 04-56-59. 0 DXLVJJYZMZ 28 ALMA-ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR

62 9791 F3 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 5 9 30.2 4 56 59.0 9791 F3 72/03/10

5 GOYVKLDJ7G

RN ASIA

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2441387
         50.0 N
                 07P.0 F
                          5.5
                  A3.5
                         357.3
                                05-09-30.2
                                             04-56-59.
   DXLVJJYZM7
                                              28 ALMA-
ATA TO LAKE PATKAL
                         329 FASTERN KAZAKH SSR
62 9791 F4 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 F4 72/03/10
                078.0 F 5.5
        50.0 N
 2441387
                 83.5
                          357.3
                                05-09-30-2
                                              04-56-59.
              0
                                               28 ALMA-
   DXLVJJYZMZ
ATA TO LAKE BAIKAL
                         329 FASTERN KAZAKH SSR
63 9792 RM 72 3 28 2441405 49.7 N 78.1 E 28 329 0. 0 83.8 357.2 4 34 30.2 4 21 57.2 9792 BM 72/03/28
        49.7 N 078.1 E 5.2
 2441405
                  83.8
                          357.2 04-34-30.2
                                              04-21-57.
   VELMSGXWPF
                                              28 ALMA-
ATA TO LAKE PAIKAL
                   329 EASTERN KAZAKH SSR
63 9792 F1 72 3 28 2441405 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F1 72/03/28
2441405 49.7 N 078.1 F 5.2
                  83.A
                          357.2
                                04-34-30.2
                                              04-21-57.
              0
2 VELMSGXWPF
                                              28 ALMA-
ATA TO LAKE BATKAL
                         329 EASTERN KAZAKH SSR
63 9792 F2 72 3 28 2441405 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F2 72/03/28
2441405 49.7 N 978.1 F 5.2
                  83.8
                         357.2 04-34-30.2
                                              04-21-57.
2 VELMSGXWPF
                                              SH ALMA-
ATA TO LAKE BATKAL
                         329 FASTERN KAZAKH SSR
63 9792 F3 72 3 28 2441405 49.7 N 78.1 E 28 329 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F3 72/03/28
2441405 49.7 N 078.1 F 5.2
              n H1.4
                         357.2
                                 04-34-30-2
                                              04-21-57.
2 VELMSGXNPF
                                              SA MEMA-
ATA TO LAKE BATKAL
                         329 FASTERN KATAKH SSR
63 9792 F4 72 3 29 2441405 49.7 N 78.1 E 29 329 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F4
                                            72/03/28
2441405 49.7 N 078.1 F 5.2
                  #3.8 357.2 04-34-30.2
                                              04-21-57.
2 VELMSGXWPF
                                               28 ALMA-
ATA TO LAKE BATKAL
                         329 FASTERN KAZAKH SSR
04 9757 RM 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
        9.4 6 13 28.0 5 50 59.5 9757 BM
 95.0
                                           72/04/11
          37.3 N 062.0 F 4.9
 2441419
             33 95.6
                          9.4
                                 U6-13-28.0
                                              05-59-59
5 GOXVKEDJZG
                                               29 WESTE
RN ASIA
                         340 TURKMEN SSR
64 9757 F1 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 59 59.5 9757 F1
                                           72/04/11
        37.7 N 007.0 F 4.0
2441419
                                06-13-28.0 05-59-59.
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340 TUPKMEN SSR

29 WESTF

64 9757 F2 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33 9.4 6 13 28.0 5 59 59.5 9757 F2 72/04/11 37.3 N 062.0 E 4.9 33 95.6 9.4 2441419 05-59-59. 06-13-28.0 5 GOXVKLDJZG 29 WESTE RN ASIA 340 TURKMEN SSR 64 9757 F3 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33 95.6 9.4 6 13 28.0 5 59 59.5 9757 F3 72/04/11 062.0 F 4.9 37.3 N 33 95.6 9.4 06-13-28-0 05-59-59. 5 GOXVKLDJ7G 29 WESTE RN ASIA 340 TURKMEN SSR 64 9757 F4 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33 95.6 9.4 6 13 28.0 5 59 59.5 9757 F4 72/04/11 37.3 N 002.0 E 4.9 2441419 33 95.6 06-13-28.0 05-59-59. 9.4 5 GOXVKLDJ7G 29 WESTE RN ASIA 340 TURKMEN SSR 65 9950 RM 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 1 40 29.9 1 27 57.6 9950 8M 72/06/07 49.8 N 078.2 E 5.5 2441476 **3.7** 357.1 01-40-29.9 01-27-57. 6 VTRGLHWWPX 28 ALMA-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 65 9950 F1 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 83.7 357.1 1 40 29.9 1 27 57.6 9950 F1 72/06/07 2441476 49.8 N 078.2 E 5.5 83.7 357.1 01-40-29.9 01-27-57. 6 VIRGLHWWPX 28 ALMA-ATA TO LAKE RATKAL 329 FASTERN KAZAKH SSR 65 9950 F2 72 6 7 2441475 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 1 40 29.9 1 27 57.6 9950 F2 72/06/07 49.8 N 078.2 E 5.5 2441476 83.7 357.1 01-40-29.9 01-27-57. 6 VIRGLHWMPX ZR ALMA-ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR 65 9950 F3 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 1 40 29.9 1 27 57.6 9950 F3 72/06/07 49.8 N 078.2 E 5.5 2441476 01-27-57. 83.7 357.1 01-40-29.9 6 VTBGLHWWPX S8 ALMA-ATA TO LAKE BAIKAL 329 FASTERN KAZAKH SSR 65 9950 F4 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 1 40 29.9 1 27 57.6 9950 F4 72/06/07 49.8 N 078.2 F 5.5 2441476 357.1 01-40-29.9 01-27-57. 43**.**7 6 VTRGLHWWPX S8 ALMA-ATA TO LAKE PATKAL 329 EASTERN KAZAKH SSR

66 10178 8M 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33 75.0 25.7 7 12 4.2 7 0 19.2 10178 8M 72/07/09

2441508 52.0 M 031.0 E 4.6

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07-00-19.
                                    07-12-04.2
                      75.0
                               25.7
               33
                                                     49 NORTH
5 IEBAKTCXSE
                             724 WESTERN PUSSIA
ERN ASIA
66 10178 F1 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33 75.0 25.7 7 12 4.2 7 0 19.2 10178 F1 72/07/09
           52.0 N
                   031.0 F
                              4.6
 2441508
                                     07-12-04.2
                                                    07-00-19.
                     75.0
                               25.7
               33
    TERVELCXZP
                                                     49 NORTH
                             724 WESTERN RUSSIA
ERN ASIA
66 10178 F2 72 7 9 244150R 52.0 N 31.0 E 49 724 33. 33 75.0 25.7 7 12 4.2 7 0 19.2 10178 F2 72/07/09
           52.0 N
                    031.0 F
                               4.6
 2441508
                                     07-12-04.2
                                                    07-00-19.
                     75.0
                               25.7
               33
                                                     49 NORTH
2 IFBVKLCX7P
FRM ASTA
                             724 WESTERN RUSSIA
 66 10178 F3 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33 75.0 25.7 7 12 4.2 7 0 19.2 10178 F3 72/07/09
                   031.0 F 4.6
           52.0 N
 2441508
                              25.7
                                      07-12-04.2
                                                    07-00-19.
                     75.0
                32
    IFBVKLCX7P
                                                     49 NORTH
                             724 WESTERN RUSSIA
FRM ASIA
 66 10178 F4 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
                                                  72/07/09
          25.7 7 12 4.2 7 0 19.2 10178 F4
 75.U
           52.0 N 031.0 F 4.6
 2441508
                     75.0
                                       07-12-04.2
                                                    07-00-19.
                               25.7
               33
                                                     49 NOPTH
2 IFBVKLCXZP
FRN ASTA
                             724 WESTERN RUSSIA
 67 10192 BM 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 29 30.0 3 16 57.7 10192 BM
                                                  72/08/16
 2441546 49.8 N 078.1 F 5.2
                                       03-29-30.0
                              357.2
                                                    03-16-57.
                   A 3 . 7
                 0
                                                     SU VENV-
7 GWPVKLXOCM
                             329 FASTERN KAZAKH SSR
ATA TO LAKE RAIKAL
 67 10192 F1 72 8 16 2441546 49.8 N 78.1 E 28 329 U.
  A3.7 357.2 3 29 30.0 3 16 57.7 10192 F1
                                                  72/08/16
           49.8 N 078.1 E 5.2
 2441546
                 0 83.7
                              357.2
                                       03-29-30.0
                                                    03-16-57.
                                                      -AMJA RS
7 GWPVKLXOCM
ATA TO LAKE BAIKAL
                             329 EASTERN KAZAKH SSR
 67 10192 F2 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 3 29 30.0 3 16 57.7 10192 F2 72/08/16
                              5.2
 2441546 49.8 M 078.1 F
                                       03-29-30-0
                                                     03-16-57.
                     83.7
                              357.2
                                                     28 ALMA-
  GWPVKLXOCM
                             329 EASTERN KAZAKH SSR
ATA TO LAKE MATKAL
 67 10192 F3 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
  83.7 357.2 3 29 30.0 3 16 57.7 10192 F3
                                                  72/08/16
          49.8 M 078.1 E 5.2
 2441546
                     8₹.7
                              357.2
                                       03-29-30.0
                                                     03-16-57.
                                                     S8 PFMV-
  GMBAKEXOCM
                             329 FASTERN KAZAKH SSR
ATA TO LAKE BATKAL
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67 10192 F4 72 8 16 2441546 49.8 N 78.1 E 28 329 0.
 A3.7 357.2 3 29 30.0 3 16 57.7 10192 F4 72/08/16
         49.8 N
 2441546
                 078.1 E
                           5.2
                   83.7
                           357.2
                                  03-29-30.0
                                               03-16-57.
  GWPVKLXOCM
                                                28 ALMA-
ATA TO LAKE BATKAL
                          329 EASTERN KAZAKH SSR
 68 10195 8M 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
         16.5 3 12 19.5 2 59 58.6 10195 BM 72/08/20
 81.6
 2441550
         49.5 N 048.2 E 5.7
              Λ
                           16.5
                                  03-12-19.5
                                               02-59-58.
                   81.6
6 FCTSXZZGDL
                                                29 WESTE
RN ASIA
                          336 WESTERN KAZAKH SSR
68 10195 F1 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
        16.5 3 12 19.5 2 59 58.6 10195 F1 72/08/20
         49.5 N 048.2 F 5.7
                   81.6
                                  03-12-19.5
                                               02-59-58.
               0
                            16.5
  FCTSXZZGDL
                                                29 WESTE
RN ASIA
                          336 WESTERN KAZAKH SSR
68 10195 F2 72 8 20 2441550 49.5 N 48.2 E 29 336 0.
        16.5 3 12 19.5 2 59 58.6 10195 F2
 P1.6
                                            72/08/20
         40.5 N
2441550
                 048.2 E 5.7
               n
                   81.6
                           16.5
                                  03-12-19.5
                                               02-59-58.
6 FCTSXZZGDL
                                                29 WESTE
PN ASIA
                          336 WESTERN KAZAKH SSR
68 10195 F3 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 A1.6
        16.5 3 12 19.5 2 59 58.6 10195 F3 72/08/20
2441550
          49.5 N
                 048.2 E
                            5.7
                            16.5
                   81.6
                                  03-12-19.5
                                               02-59-58.
6 FCTSXZZGDL
                                                29 WESTE
PN ASIA
                          336 WESTERN KAZAKH SSR
68 10195 F4 72 8 20 2441550 49.5 N 48.2 E 29 336 0.
 81.6 16.5 3 12 19.5 2 59 58.6 10195 F4 72/08/20
         49.5 N
                 048.2 F 5.7
2441550
                           16.5
                                               02-59-58.
                                  03-12-19.5
                   81.6
5 FCTSXZZGDL
                                                29 WESTE
RN ASIA
                          336 WESTERN KAZAKH SSR
69 10197 BM 72 8 28 2441558 73.3 N 55.1 E 40 648 U. 0
 59.5
          6.1 6 10 4.3 5 59 56.5 10197 BM
                                             72/08/28
          73.3 M
 2441558
                 055.1 E
                            6.3
               O
                   59.5
                             6.1
                                  06-10-04.3
                                               05-59-56.
5 PBFRIJLFJX
                                               40 ARCTT
C ZONE
                          648 NOVAYA ZEMLYA
69 10197 F1 72 8 28 2441558 73.3 N 55.1 E 40 648 0.
          6.1 6 10 4.3 5 59 56.5 10197 F1
                                             72/08/28
 59.5
                 055.1 F 6.3
 2441558
          73.3 N
                   59.5
                                  06-10-04.3
                                              05-59-56.
                             6.1
   PBFRIJLFJX
                                               40 ARCTI
C 70NE
                          648 MOVAYA ZEMLYA
69 10197 F2 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
 59.5
          6.1 6 10 4.3 5 59 56.5 10197 F2
                                           72/08/28
          73.3 N
                 055.1 E 6.3
 2441558
               0
                           6.1 06-10-04.3 05-59-56.
                   59.5
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PBFRIJLFJX
                                                40 ARCTI
C ZONE
                          648 NOVAYA ZEMLYA
69 10197 F3 72 8 29 2441559 73.3 N 55.1 E 40 648 0.
 59.5
         6.1 6 10 4.3 5 59 56.5 10197 F3
                                             72/08/28
2441558
          73.3 N 055.1 E 6.3
                                               05-59-56.
                  59.5
                                   06-10-04.3
               0
                           6.1
5 PBFRIJLFJX
                                                40 ARCTI
C ZONE
                          648 NOVAYA ZEMLYA
69 10197 F4 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
 59.5
         6.1 6 10 4.3 5 59 56.5 10197 F4 72/08/28
          73.3 N 055.1 E 6.3
2441558
                  59.5
                                   06-10-04.3
                                             05-59-56.
               0
                            6.1
                                                40 ARCTI
5 PBFRIJLFJX
C ZONE
                          648 NOVAYA ZEMLYA
70 10199 BM 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 9 9 29.5 8 56 58.2 10199 BM
                                           72/09/02
2441563 50.0 M 077.7 F 5.1
                                 09-09-29.5
                   83.5
                          357.5
                                               08-56-58.
   SIVZXBOJLB
                                                S8 ALMA-
                          329 EASTERN KAZAKH SSR
ATA TO LAKE BATKAL
70 10199 F1 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 9 9 29.5 8 56 58.2 10199 F1
                                             72/09/02
2441563
          50.0 M 077.7 F 5.1
                           357.5
                  83.5
                                   09-09-29.5
                                               08-56-58.
2 SIVZXBOJLB
                                                28 ALMA-
ATA TO LAKE BATKAL
                          329 EASTERN KAZAKH SSR
70 10199 F2 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
 A3.5 357.5 9 9 29.5 A 56 58.2 10199 F2 72/09/02
 2441563 50.0 M 077.7 E 5.1
                           357.5 09-09-29.5
                  સર.5
                                               08-56-58.
               0
   SIVZXBOJLB
                                                SW VEWY-
                          329 FASTERM KAZAKH SSR
ATA TO LAKE PAIKAL
70 10199 F3 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0 83.5 357.5 9 9 29.5 8 56 58.2 10199 F3 72/09/02
          50.0 N
                 077.7 F 5.1
                                   09-09-29.5
                                               08-56-58.
                  H3.5
                           357.5
SIVZXBOJLB
                                                28 ALMA-
ATA TO LAKE BATKAL
                          329 EASTERN KAZAKH SSR
70 10199 F4 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
 85.5 357.5 9 9 29.5 8 56 58.2 10199 F4 72/09/02
                           5.1
 2441563
        50.0 N
                 077.7 E
                                 09-09-29.5
                  83.5
                           357.5
                                               08-56-58.
2 SIVZXBOJLB
                                                ZA ALMA-
ATA TO LAKE BATKAL
                         329 FASTERN KAZAKH SSR
71 10201 BM 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
 61.9 16.2 7 10 26.6 7 0 3.4 10201 BM 72/09/04
        67.7 N 033.4 F 4.6
 2441565
                  61.9
                                               07-00-03.
                            16.2 07-10-26.6
4 LEBUCEXEFH
                                                49 NORTH
                          724 WESTERN RUSSIA
FRN ASTA
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71 10201 F1 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7

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16.2 7 10 26.6 7 0 3.4 10201 F1
 61.9
                                              72/09/04
 2441565
                 033.4 E 4.6
          67.7 N
                   61.9
                           16.2
                                    07-10-26-6
                                                07-00-03.
               7
4 LEBUCEXEFH
                                                 49 NORTH
FRN ASTA
                           724 WESTERN RUSSIA
 71 10201 F2 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
         16.2 7 10 26.6 7 0 3.4 10201 F2
                                              72/09/04
 61.9
         67.7 N 033.4 E 4.6
 2441565
                    61.9
                                   07-10-26.6
                                                07-00-03.
               7
                           16.2
                                                 49 NORTH
4 LFBUCEXEFH
                           724 WESTERN RUSSIA
ERN ASIA
 71 10201 F3 72 9 4 2441565 67.7 N 33.4 E 49 724 7.
 61.9
         16.2 7 10 26.6 7 0 3.4 10201 F3
                                              72/09/04
 2441565
         67.7 N 033.4 E 4.6
               7
                   61.a
                           16.2
                                   07-10-26.6
                                                07-00-03.
4 LEBUCEXEFH
                                                 49 NORTH
FRN ASTA
                           724 WESTERN RUSSIA
 71 10201 F4 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
 61.9 16.2 7 10 26.6 7 0 3.4 10201 F4
                                              72/09/04
         67.7 N 033.4 E 4.6
 2441565
                   01.9
                           16.2 07-10-26.6
                                                07-00-03.
4 LFBUCEXEFH
                                                 49 NURTH
ERN ASIA
                           724 WESTERN RUSSIA
 72 10613 BM 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
         13.4 9 12 8.5 8 59 57.1 10613 BM
 79.7
                                              72/09/21
          52.1 N 052.0 F 5.1
 2441582
             28
                           13.4
                                   09-12-08.5
                                                08-59-57.
                   79.7
1 ZEMQLWVOUK
                                                 49 NORTH
ERN ASIA
                           724 WESTERN RUSSIA
 72 10613 F1 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 F1
                                              72/09/21
         52.1 N 052.0 E 5.1
 2441582
                           13.4 09-12-08.5
              5 B
                                               08-59-57.
                   79.7
                                                 49 NORTH
    ZEMQLWVOUK
FRM ASTA
                           724 WESTERN RUSSIA
 72 10613 F2 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28 79.7 13.4 9 12 8.5 8 59 57.1 10613 F2 72/09/21
         52.1 N 052.0 E
                            5.1
 2441582
              28
                                   09-12-08.5
                                                08-59-57.
                   79.7
                            13.4
1 ZEMQLWVOUK
                                                 49 NORTH
FRN ASIA
                           724 WESTERN RUSSIA
 72 10613 F3 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28 79.7 13.4 9 12 8.5 8 59 57.1 10613 F3 72/09/21
          52.1 N 052.0 F 5.1
 2441582
              24
                   79.7
                           13.4
                                   09-12-08.5
                                              08-59-57.
                                                49 NORTH
1 ZEMGLWVOHK
FRM ASTA
                           724 WESTERN RUSSTA
 72 10613 F4 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
        13.4 9 12 9.5 8 59 57.1 10613 F4 72/09/21
 79.7
         52.1 N 052.0 F 5.1
 24415R2
              2 B
                 79.7
                           13.4 09-12-08.5 08-59-57.
   ZEMQLWVOUK
                                                 49 NORTH
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ERN ASIA

724 WESTERN RUSSIA

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73 10618 BM 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
        18.4 9 12 28.7 9 0 11.7 10618 BM
                                            72/10/03
 2441594
         49.6 N
                045.0 E
                           5 . A
                   80.A
                           18.4
                                  09-12-28.7
                                              09-00-11.
   JWWLDFGFFX
                                               30 MIDDL
F FAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA
 73 10618 F1 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F1
                                            72/10/03
        49.6 N 045.0 F
                           5.8
2441594
                   80.8
                                  09-12-28.7
                                              09-00-11.
                           18.4
   JWWLDFGFFX
                                              30 MIDDL
F EAST - CRIMEA - RALKANS 357 SOUTHWESTERN RUSSIA
73 10618 F2 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8
        18.4 9 12 28.7 9 0 11.7 10618 F2 72/10/03
         49.6 N 045.0 E
2441594
                           5.0
                                              09-00-11.
                  80.8
                                  09-12-28.7
                           18.4
   JWWLDEGEEX
                                               30 MIDDL
F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA
 73 10618 F3 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F3 72/10/03
         49.6 N 045.0 F
 2441594
                           5.A
              0
                   80.A
                           18.4
                                  09-12-28.7
                                              09-00-11.
   JWWLDFGFFX
                                              30 MIDDL
F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA
73 10618 F4 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
         18.4 9 12 28.7 9 0 11.7 10618 F4
 80.8
                                             72/10/03
 2441594
         49.6 N 045.0 E
                           5.8
                  80.8
                           18.4
                                  09-12-28.7
                                              09-00-11.
7 JUWLDEGEEX
                                               30 MIDDL
E FAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA
74 10624 BM 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.0 350.7 1 39 29.5 1 26 57.9 10624 BM 72/11/02
        49.9 M
2441624
                 078.8 E 6.2
                          356.7
              ŋ
                   83.6
                                  01-39-29.5
                                              01-26-57.
9 LCDUWIFYFX
                                               28 ALMA-
ATA TO LAKE BATKAL
                         329 EASTERN KAZAKH SSR
74 10624 F1 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 A3.6 356.7 1 39 29.5 1 26 57.9 10624 F1 72/11/02
 2441624
        40.0 1
                078.8 E 6.2
                           350.7
              0
                  83.6
                                  01-39-29.5
                                              01-26-57.
                                               28 ALMA-
CDUWIFYFX
ATA TO LAKE BATKAL
                         329 FASTERN KAZAKH SSR
74 10624 F2 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.6 356.7 1 39 29.5 1 26 57.9 10624 F2 72/11/02
        49.9 N
                 078.8 E 6.2
 2441524
                  43.A
                                  01-39-29.5
                          356.7
              Λ
                                              01-26-57.
Q LCDUWIFYFX
                                               SE VENY-
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74 10624 F3 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0 83.6 356.7 1 39 29.5 1 26 57.9 10624 F3 72/11/02

329 FASTERN KAZAKH SSR

ATA TO LAKE BATKAL

2441624 49.9 N 078.8 E 6.2 01-39-29.5 01-26-57. 83.6 356.7 9 LCDUWIFYFX 28 ALMA-329 EASTERN KAZAKH SSR ATA TO LAKE BAIKAL 74 10624 F4 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0 83.6 356.7 1 39 29.5 1 26 57.9 10624 F4 72/11/02 49.9 M 078.8 E 2441624 6.2 01-39-29.5 83.6 356.7 01-26-57. 28 ALMA-9 LCDUWIFYFX 329 EASTERN KAZAKH SSR ATA TO LAKE BAIKAL 75 10628 BM 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33 13.8 9 12 10.4 9 0 3.8 10628 BM 78.9 051.1 E 4.7 2441646 52.8 N 09-00-03. 70.0 13.8 09-12-10.4 33 A KGCLSURXCE 49 NOPTH 724 WESTERN RUSSIA FRM ASIA 75 10628 F1 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33 13.8 9 12 10.4 9 0 3.8 10628 F1 051.1 E 4.7 52.8 N 2441646 33 7P.9 13.8 09-12-10.4 09-00-03. A KGCLSURXCE 49 NORTH FRN ASIA 724 WESTERN RUSSTA 75 10628 F2 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33 78.9 13.8 9 12 10.4 9 0 3.8 10628 F2 72/11/24 52.8 N 051.1 E 4.7 2441046 7 R . O 13.8 09-12-10.4 09-00-03-33 A KGCLSUPXCE 49 NORTH FRM ASIA 724 WESTERN RUSSIA 75 10628 F3 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33 13.8 9 12 10.4 9 0 3.8 10628 F3 78.9 72/11/24 52.8 N 051.1 E 4.7 2441646 78.9 09-12-10.4 09-00-03. 13.8 33 A KGCLSURXCE 49 NORTH FRM ASIA 724 WESTERN RUSSIA 75 10628 F4 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33 13.8 9 12 10.4 9 0 3.8 10628 F4 52.8 N 051.1 F 4.7 78.9 72/11/24 2441646 78.9 13.8 09-12-10.4 09-00-03. 33 KGCLSUPXCE 49 NORTH ERM ASTA 724 WESTERN RUSSIA 76 10630 RM 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 6.0 10 12 18.4 9 59 58.2 10630 BM 72/11/24 064.1 E 5.2 2441646 51.8 N 0 P1.4 6.0 10-12-18.4 09-59-58.2 BXJMLVHRHS 29 WESTER 336 WESTERN KAZAKH SSR M ASIA 76 10630 F1 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0 P1.4 6.0 10 12 1P.4 9 59 58.2 10630 F1 72/11/24

51.8 N 064.1 E 5.2

81.4

6.0 10-12-18.4

09-59-58.

29 WESTE

2441646

BXJML VHRHS

PN ASIA

336 WESTERN KAZAKH SSR

336 WESTERN KAZAKH SSR

76 10630 F2 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
R1.4 6.0 10 12 18.4 9 59 58.2 10630 F2 72/11/24
2441646 51.8 N 064.1 E 5.2
0 81.4 6.0 10+12-18.4 09-59-58.
2 RXJMLVHRHS 29 WESTERN KA7AKH SSR

76 10630 F3 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0 81.4 6.0 10 12 18.4 9 59 58.2 10630 F3 72/11/24 2441646 51.8 N 064.1 E 5.2

0 81.4 6.0 10-12-18.4 09-59-58. 2 BXJMLVHRHS 29 WESTF RN ASIA 336 WESTERN KAZAKH SSR

76 10630 F4 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0 81.4 6.0 10 12 18.4 9 59 58.2 10630 F4 72/11/24 2441646 51.8 N 064.1 E 5.2 0 81.4 6.0 10-12-18.4 09-59-58. P BXJMLVHRHS

77 10731 RM 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 4 39 30.1 4 26 58.9 10731 BM 72/12/10 2441662 50.0 N 078.0 F 5.7 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHEX 28 ALMA-ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR

77 10731 F1 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
83.5 357.3 4 39 30.1 4 26 58.9 10731 F1 72/12/10
2441662 50.0 N 078.0 E 5.7
0 83.5 357.3 04-39-30.1 04-26-58.
9 GIDVPYLHEX
28 ALMAATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR

77 10731 F2 72 12 10 2441652 50.0 N 78.0 E 28 329 0. 0

83.5 357.3 4 39 30.1 4 26 58.9 10731 F2 72/12/10

2441662 50.0 N 078.0 F 5.7

0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHEX

28 ALMA
414 TO LAKE BATKAL 329 FASTERN KAZAKH SSR

77 10731 F3 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0 83.5 357.3 4 39 30.1 4 26 58.9 10731 F3 72/12/10 2441662 50.0 N 078.0 E 5.7

0 83.5 357.3 04-39-30.1 04-26-58.
9 GIDVPYLHEX 28 ALMAAFA TO LAKE PAIKAL 329 FASTERN KAZAKH SSR

77 10731 F4 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0 83.5 557.3 4 39 30.1 4 26 58.9 10731 F4 72/12/10 2441662 50.0 M 078.0 E 5.7

0 83.5 357.3 04-39-30.1 04-26-58.
9 GIDVPYLHEX 28 ALMAΔΙΔ ΤΌ LAKE BATKAL 329 FASTERN KAZAKH SSR

78 10913 HM 73 4 19 2441792 49.8 N 78.2 E 28 329 0. 0 83.7 357.1 4 33 0.0 4 20 27.7 10913 HM 73/04/19

2441792

49.8 N

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357.1
                  83.7
                                04-33-00.0
                                             04-20-27.
7 UMULEMUXZK
                                              SA ALMA-
                         329 FASTERN KAZAKH SSR
ATA TO LAKE BATKAL
78 10913 F1 73 4 19 2441792 49.8 N 78.2 E 28 329 0.
 83.7 357.1 4 33 0.0 4 20 27.7 10913 F1 73/04/19
2441792
         49 A N
                078.2 F 5.4
                  83.7
                          357.1
                                 04-33-00.0
                                             04-20-27.
   UMULEMUXZK
                                              28 ALMA-
ATA TO LAKE BATKAL
                        329 FASTERN KAZAKH SSR
78 10913 F2 73 4 19 2441792 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 4 33 0.0 4 20 27.7 10913 F2 73/04/19
                          5.4
2441792
         49.8 N 078.2 F
                 83.7
                                 04-33-00.0
                          357.1
                                             04-20-27.
                                              28 ALMA-
7 UMULEMUX7K
                         329 FASTERN KAZAKH SSR
ATA TO LAKE BATKAL
78 10913 F3 73 4 19 2441792 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 4 33 0.0 4 20 27.7 10913 F3 73/04/19
 2441792 49.8 N 078.2 E 5.4
                          357.1
                               04-33-00.0
                                             04-20-27.
                  83.7
              n
   UMULEMUXZK
                                              SH PFMV-
ATA TO LAKE BATKAL
                        329 EASTERN KAZAKH SSR
78 10913 F4 73 4 19 2441792 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 4 33 0.0 4 20 27.7 10913 F4 73/04/19
        49.8 N 078.2 F 5.4
2441792
                         357.1
                                04-33-00.0
                                            04-20-27.
              n
                 83.7
7 HMULEMUXZK
                                             SH PFMV-
                         329 FASTERN KAZAKH SSR
ATA TO LAKE RATKAL
 79 11048 PM 73 7 10 2441874 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 1 26 57.0 1 14 24.7 11048 BM
                                           73/07/10
2441874 49.8 M 079.1 F
                           5.4
                  43.7
                         357.2
                                01-26-57.0 01-14-24.
   TPSYXLZIEV
                                              SH PLMA-
ATA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
79 11048 F1 73 7 10 2441874 49.8 N 78.1 E 28 329 0. 0
 A3.7 357.2 1 26 57.0 1 14 24.7 11048 F1 73/07/10
2441874 49.8 M 078.1 E 5.4
                  £3.7
                         357.2
                                01-26-57.0
                                             01-14-24
                                             SA VEMA-
7 TPSYXLZIFV
ATA TO LAKE RATKAL
                         329 EASTERN KAZAKH SSR
 79 11048 F2 73 7 10 2441874 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 1 26 57.0 1 14 24.7 11048 F2
                                           73/07/10
                          5.4
 2441874 49.8 N 078.1 E
              0
                          357.2
                  P3.7
                                 01-26-57.0 01-14-24.
7 TPSYXLZIFV
                                              SE PENT-
                         329 FASTERN KAZAKH SSR
ATA TO LAKE RATKAL
 79 11048 F3 73 7 10 2441874 49.8 N 78.1 E 28 329 0.
 93.7 357.2 1 26 57.0 1 14 24.7 11048 F3 73/07/10
 2441874 49.8 N 078.1 E
                          5.4
                  83.7
                         357.2 01-26-57.0
                                             01-14-24.
  TPSYXLZIEV
                                              28 ALMA-
ATA TO LAKE BATKAL
                        - 329 FASTERN KAZAKH SSR
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5.4

078.2 E

2441919 42.7 4 067.4 F 5.3

79 11048 F4 73 - 7 10 2441874 49.8 N - 78.1 E 28 329 - 0. 83.7 357.2 1 26 57.0 1 14 24.7 11048 F4 73/07/10 49 B M 2441874 078.1 F 5.4 83.7 357.2 01-26-57.0 01-14-24. TPSYXLZIEV 28 ALMA-ATA TO LAKE BATKAL 320 EASTERN KAZAKH SSR 80 11069 EM 73 7 23 2441887 50.0 N 78.9 E 28 329 U. 0 83.5 356.7 1 22 57.0 1 10 26.0 11069 BM 73/07/23 50.0 N 2441887 078.9 E 6.3 83.5 356.7 01-22-57.0 01-10-26. 0 ULIHMISOXR SH ALMA-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 80 11069 F1 73 7 23 2441887 50.0 N 78.9 E 28 329 0. P3.5 356.7 1 22 57.0 1 10 26.0 11069 F1 73/07/23 2441887 50.0 N 078.9 F 6.3 83.5 356.7 01-22-57.0 01-10-26. 0 ULIHMISOXR 28 ALMA-ATA TO LAKE RATKAL 329 FASTERN KAZAKH SSR 80 11069 F2 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0 83.5 356.7 1 22 57.0 1 10 26.0 11069 F2 73/07/23 50.0 N 078.9 E 2441887 6.3 87.5 01-22-57.0 356.7 01-10-26. 0 ULIHMISOXR 28 ALMA-ATA TO LAKE BATKAL 329 EASTERN KAZAKH SSR 80 11069 F3 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 83.5 356.7 1 22 57.0 1 10 26.0 11069 F3 73/07/23 078.9 F 2441887 50.0 N 6.3 83.5 01-22-57.0 350.7 01-10-26. 0 HLIHMISOXR 28 ALMA-ATA TO LAKE PATHAL 329 EASTERN KAZAKH SSR 80 11069 F4 73 - 7 23 2441887 50.0 H - 78.9 E 28 329 - 0. - 0 83.5 356.7 1 22 57.0 1 10 26.0 11069 F4 73/07/23 50.0 N 078.0 F 2441887 6.3 H3.5 356.7 01-22-57.0 01-10-26. O ULIMMISOYR ZA ALMA-ATA TO LAKE BATKAL 329 FASTERN KAZAKH SSR 81 11432 BM 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0 90.7 4.7 1 59 57.0 1 46 51.1 11432 BM 73/08/15 2441910 42.7 M 067.4 E 5.3 90.7 01-59-57.0 4.7 01-46-51. 1 XLGDIDBMIZ 48 HINDU KUSH AND PAMIP 713 CENTRAL KAZAKH SSR 81 11432 F1 73 8 15 2441910 42.7 h 67.4 E 48 713 0. 0 4.7 1 59 57.0 1 46 51.1 11432 F1 73/08/15 00.7 42.7 4 2441910 067.4 F 5.3 01-59-57.0 n 90.7 4.7 01-46-51. 1 XEGUIDPMIZ 48 HINDU KUSH AND PAMIR 713 CENTRAL KAZAKH SSR M1 11432 F2 73 H 15 2441910 42.7 N 67.4 E 48 713 V. 0 90.7 4.7 1 59 57.0 1 46 51.1 11432 F2 73/08/15

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90.7
                            4.7
                                01-59-57.0
                                              01-46-51.
   XLGDIDBMIZ
                                               48 HINDU
1
KUSH AND PAMIP
                         713 CENTRAL KAZAKH SSR
81 11432 F3 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
         4.7 1 59 57.0 1 46 51.1 11432 F3
                                            73/08/15
 90.7
          42.7 N
                 067.4 F 5.3
2441910
                  90.7
                                  01-59-57.0
                                              01-46-51.
                            4.7
                                               48 HINDU
1 XLGDIDBMTZ
KUSH AND PAMTE
                         713 CENTRAL KAZAKH SSR
81 11432 F4 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
         4.7 1 59 57.0 1 46 51.1 11432 F4
                                            73/08/15
 90.7
2441910
          42.7 N 067.4 E 5.3
                   90.7
                           4.7
                                  01-59-57.0
                                              01-46-51.
1 XLGOTOBMIZ
                                               48 HIMDU
KUSH AND PAMIR
                         713 CENTRAL KAZAKH SSR
82 11473 PM 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
         3.4 2 59 58.0 2 47 30.6 11473 BM
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6 EWUYDJXMLW
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                         713 CENTRAL KATAKH SSR
82 11473 F1 73 A 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 F1
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         50.6 N 068.4 F 5.3
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82 11473 F3 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
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                         713 CENTRAL KAZAKH SSR
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6 EWUYDJXMLW
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 KUSH AND PAMIR
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         6.1 6 59 57.0 6 49 49.1 11535 BM 73/09/12
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          73.3 N 055.2 E 6.8
 2441438
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                 59.6
                                  06-59-57.0
                           6.1
                                              40 ARCTI
1 MSXMYHGLJI
                         648 NOVAYA ZEMLYA
C ZONE
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        87 11535 F1 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
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 85 11585 F1 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
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9 JMXUZHGPLI
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FAN ASTA
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 86 11589 F1 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0
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FRN ASIA
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9 JMXUZHGPLI
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FRM ASIA
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         11.0 5 59 57.0 5 47 51.6 11662 01
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        53.7 N 055.4 E 4.A
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6 LZJXPFGUMF
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87 11662 D2 73 10 26 2441982 53.7 N 55.4 E 29 335 0.
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6 WMMSCULDYZ
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C ZUNE
                          548 NOVAYA ZEMLYA
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  ™MMSCUL DYZ
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648 NOVAYA ZEMLYA

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6 WMMSCULDXZ
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C ZONE
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                          648 NOVAYA ZEMLYA
89 11785 PM 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 A3.5 356.6 7 46 47.0 7 34 16.0 11785 BM
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 P3.5 356.6 7 46 47.0 7 34 16.0 11785 D1
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 83.5 356.6 7 46 47.0 7 34 16.0 11785 D2
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   WUDYLBXEST
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ATA TO LAKE RATKAL
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                                               SA ALMA-
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                          329 EASTERN KAZAKH SSR
89 11785 D4 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
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51.2 M
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   UUEQFZRJKL
7
                                                1 ALASK
A - ALEUTIAN ARC
                            6 RAT ISLANDS, ALEUTIAN ISLAND
 90 1045 F1 65 10 1 2439035 51.2 N 178.9 E 1
                                              6 36. 36
  47.4 304.5 13 23 1.7 13 14 23.7 1045 F1
                                              65/10/01
 2439035 51.2 N 178.9 F
                           4.A
                   47.4
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7 HUERFZRJKL
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                            6 RAT ISLANDS, ALEUTTAN ISLAND
A - ALEUTIAN APC
 90 1045 F2 65 10 1 2439035 51.2 N 178.9 E 1
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  47.4 304.5 13 23 1.7 13 14 23.7 1045 F2
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A - ALEUTIAN APC
                            6 RAT ISLANDS, ALEUTIAN ISLAND
 90 1045 F3 65 10 1 2439035 51.2 N 178.9 E 1
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  47.4 304.5 13 23 1.7 13 14 23.7 1045 F3
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7 UOENFZPJKL
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                            6 PAT ISLANDS, ALEUTIAN ISLAND
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                           304.5
                                   13-23-01.7
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  UUEGEZRJKL
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         51.3 N 174.0 E 5.2
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5 TLIPEFGIDS
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5 TLIPEFRIDS
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                            5 MEAR ISLANDS, ALEUTIAN ISLAN
A - ALEUTIAN APC
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        51.3 M 174.0 F 5.2
2439076
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  TLIPEFQIDS
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                           5 NEAR ISLANDS, ALEUTIAN ISLAN
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92 1056 BM 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
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                                            65/11/13
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92 1056 F1 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F1
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N A
92 1056 F2 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
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                                               28 ALMA-
ATA TO LAKE PATKAL
                         332 MORTHERN SINKIANG PROV., CHI
NΔ
92 1056 F3 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F3 65/11/13
        43.8 N 087.7 E 6.4
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                                  04-46-43.3
                                              04-33-45.
5 CEHDOVJLOG
                                               SA ALMA-
ATA TU LAKE BAIKAL
                         332 NORTHERN SINKIANG PROV., CHI
92 1056 F4 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F4 65/11/13
2439078
         43.8 N 087.7 E 6.4
             55
                  9.0
                          350.0
                                  04-46-43.3
                                              04-33-45.
   CFHDOVJLOG
                                               28 ALMA-
ATA TO LAKE BATKAL
                         332 NORTHERN SINKIANG PROV., CHI
MΔ
   1901 BM 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
93
         .5 9 5 21.3 8 51 58.8 1901 BM
 94.3
                                             66/01/28
 2439154
          39.3 N
                 073.1 F 5.3
                             .5
             43
                   94.3
                                  09-05-21.3
                                              08-51-58.
A QBOLTKJKWF
                                               48 HINDU
KUSH AND PAMIR
                          712 TADZHIK-SINKIANG BORDER REGI
Oil
   1901 F1 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3
         .5 9 5 21.3 8 51 58.8 1901 F1 66/01/28
 2439154
          39.3 N
                 073.1 F 5.3
                            •5
                                  09-05-21.3
                  94.3
                                              08-51-58.
A DBOLTKJKWF
                                               48 HINDU
KUSH AND PAMIR
                         719 TADZHIK-SINKIANG BORDER PEGI
ON
93 1901 F2 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F2 66/01/2R
         39.3 N 177.1 F 5.3
2439154
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43
                   94.3
                          .5
                                  09-05-21.3
                                            08-51-58.
   QHOLTKJKWF
                                               48 HINDU
KUSH AND PAMIR
                         719 TADZHIK-SINKIANG BORDER REGI
UV
93 1901 F3 06 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
         .5 9 5 21.3 8 51 58.8 1901 F3 66/01/28
 94.3
          39.3 N
                073.1 F 5.3
2439154
                  94.3
                          .5
                                  09-05-21.3
                                              08-51-58.
             43
A OBOLTKIKNE
                                              48 HINDU
                         719 TADZHIK-SINKIANG BORDER PEGI
KUSH AND PAMIR
MIN
93 1901 F4 oh 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F4 66/01/28
                073.1 E 5.3
          39.3 M
2439154
                             •5
                  94.3
                                  09-05-21.3
                                              08-51-58.
             43
 DBOLTKJKWF
                                               48 HINDU
KUSH AND PAMIR
                         719 TADZHIK-SINKIANG BORDER REGI
94 2194 BM 66 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
         3.5 4 40 13.9 4 26 9.1 2194 BM
103.7
                                            66/02/07
2439164
          29.8 N 009.7 E 6.0
             33
                  103.7
                                  04-40-13.9
                                              04-26-09.
                           3.6
1 TEMSPURVMY
                                              47 BALUC
HISTAN
                         710 WEST PAKISTAN
94 2194 F1 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
103.7 3.6 4 40 13.9 4 26 9.1 2194 F1
                                            66/02/07
          29.8 N 069.7 F 6.0
2439164
                  103.7
                                  04-40-13.9
             33
                           3.0
                                              04-26-09.
1 TEMSPURYMY
                                              47 BALUC
HISTAN
                         710 WEST PAKISTAN
94 2194 F2 66 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
         3.6 4 40 13.9 4 26 9.1 2194 F2
103.7
                                            66/02/07
 2439164
          29.8 N 069.7 E 6.0
                  103.7
                                  04-40-13.9
                                              04-26-09.
                           3.6
1 TEMSPUOVMY
                                              47 PALUC
HISTAN
                         710 WEST PAKISTAN
94 2194 F3 66 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
        3.6 4 40 13.9 4 26 9.1 2194 F3
103.7
                                            66/02/07
         29.8 4 000.7 F 6.0
2439164
             33
                  103.7
                           3.6
                                  04-40-13.9
                                              04-26-09.
1 TLMSPUQVMY
                                              47 BALUC
HISTAN
                         710 WEST PAKISTAN
94 2194 F4 66 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
         3.6 4 40 13.9 4 26 9.1 2194 F4
103.7
                                            06/02/07
          29.8 M 069.7 E 6.0
2439164
             33
                  103.7
                           3.6
                                  04-40-13.9
                                              04-26-09.
   TLMSPUQVMY
                                              47 BALUC
HISTAN
                         710 WEST PAKTSTAN
95 2805 BM 06 5 20 2439206 13.9 N 140.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 BM
                                             06/05/20
2439266 13.9 N 146.1 F 6.0
                  91.7
                                  09-27-50.9
                         505.3
                                              09-14-40.
2 FREEGUGLIU
                                              17 CAROL
THE ISLANDS TO GHAM
                    210 SOUTH OF MARIANA ISLANDS
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95 2805 F1 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F1 66/05/20
2439266 13.9 N 146.1 E 6.0
                  91.7
                          292.3
                                09-27-50.9
                                             09-14-40.
             66
2 FRFEGGGLIU
                                              17 CAROL
                      210 SOUTH OF MARIANA ISLANDS
INE ISLANDS TO GUAM
 95 2805 F2 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F2 66/05/20
2439266 13.9 N 146.1 E 6.0
                          292.3 09-27-50.9
                  91.7
                                             09-14-40.
             66
2 FRFEGGGLIU
                                              17 CAROL
INE ISLANDS TO GUAM
                        210 SOUTH OF MARIANA ISLANDS
95 2805 F3 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F3 66/05/20
 2439266 13.9 N 146.1 E 6.0
                  91.7
                         292.3 09-27-50.9
                                             09-14-40.
2 FRFEGOGLIU
                                              17 CAROL
                        210 SOUTH OF MARIANA ISLANDS
THE ISLANDS TO GUAM
95 2805 F4 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F4 66/05/20
2439266 13.9 N 146.1 F 6.0
                 91.7 292.3 09-27-50.9 09-14-40.
             66
  FREEGUGLIU
INF ISLANDS TO GUAM
                        210 SOUTH OF MARIANA ISLANDS
96 2806 BM 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 BM
                                            66/05/20
2439266 55.0 N 165.7 E 5.2
                   52.7
                         313.7 11-53-40.6
                                             11-44-22
                                              1 ALASK
4 TYQYELFOFF
A - ALEUTIAN ARC
                          4 KOMANDORSKY ISLANDS REGION
96 2806 F1 56 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F1 66/05/20
 2439266 55.0 N 165.7 F 5.2
                  52.7
                          313.7 11-53-40.6
                                            11-44-72.
             46
4 TYGYFLFOFF
                                               1 ALASK
A - ALEUTIAN ARC
                          4 KOMANDORSKY TSLANDS PEGION
96 2806 F2 66 5 20 2439266 55.0 N 165.7 L 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F2
                                            66/05/20
2439266 55.0 N 165.7 F 5.2
                   52.7
                         313.7 11-53-40.6
                                             11-44-22.
4 TYRYFLFOFF
                                               1 ALASK
A - ALEUTIAN ARC
                          4 KUMANDORSKY ISLANDS REGION
96 2806 F3 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F3
                                            66/05/20
                165.7 F
         55.0 N
                          5.2
                  52.7
                          313.7
                                11-53-40.6
                                             11-44-22.
4 TYRYELFOFF
                                               1 ALASK
A - ALEUTIAN APC
                          4 KOMANDORSKY ISLANDS REGION
96 2806 F4 06 5 20 2439206 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F4 66/05/20
 2439266 55.0 N 165.7 F 5.2
                   52.7 313.7 11-53-40.6 11-44-22.
             46
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6 OPMLVHCGSI

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4 TYRYFLFUFF
                                               1 ALASK
                           4 KOMANDORSKY ISLANDS REGION
A - ALEUTIAN ARC
97 2831 BM 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 BM 66/05/25
2439271 6.4 S 131.1 F 5.8
             39 116.8 290.6 08-47-39.2
                                           08-32-37.
0 IPIKMORPHL
                                              24 SUNDA
 ARC
                         280 BANDA SEA
 97 2831 F1 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
110.8 290.6 8 47 39.2 8 32 37.0 2831 F1
                                           66/05/25
         6.4 S 131.1 F 5.8
 2439271
            30
                 116.8
                          290.6
                                 08-47-39.2
                                            08-32-37.
O IPIKMORPHL
                                              24 SUNDA
ARC
                         280 BANDA SEA
97 2831 F2 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 R 47 39.2 8 32 37.0 2831 F2 66/05/25
2439271
         6.4 S 131.1 E 5.8
             39
                 116.8
                         290.6 08-47-39.2
                                            08-32-37.
U IBIKWGRPHL
                                             24 SUNDA
APC
                         280 BANDA SEA
 97 2831 F3 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
 116.8 290.6 8 47 39.2 8 32 37.0 2831 F3 66/05/25
         6.4 5 131.1 5 5.8
            39
                 116.8
                         290.6 08-47-39.2
                                            08-32-37.
0 IDIKMORPHE
                                              24 SUNDA
 APC
                         280 RAMDA SEA
 97 2831 F4 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.0 9 47 39.2 8 32 37.0 2831 F4 66/05/25
          6.4 S 131.1 E 5.8
             30
                  116.9
                          290.6 08-47-39.2 08-32-37.
n IPIKMQRPHL
                                             24 SUNDA
ARC
                         280 RANDA SEA
98 2863 RM 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
 99.5 357.3 5 25 4.8 5 11 18.6 2883 BM 66/06/04
        34.0 M 077.0 E 5.7
 2439281
                99.5 357.3 05-25-04.8
            207
                                           05-11-18.
6 OPMLVHCGSI
                                             56 INDIA
 - TIMET - SZECHWAN - YUNAN 302 EASTERN KASHMIR
 98 2883 F1 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
 99.5 357.3 5 25 4.8 5 11 18.6 2883 F1
                         5.7
 2439281
          34.0 N 077.0 F
                  99.5
                          357.3
                                 05-25-04.R
            207
                                           05-11-18.
 RPMLVHCGSI
                                             SE INDIA
 - ITBET - SZECHWAN - YUMAN 302 EASTERN KASHMIR
98 2883 F2 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
 99.5 357.3 5.25 4.8 5.11 18.6 2883 F2
                                            66/06/00
 2/139281 34.0 N 077.0 E 5.7
                 90,5
                         357.3
                                 05-25-04.8
            207
                                           05-11-18.
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- TIBET - SZECHWAN - YUNAM 302 FASTERN KASHMIR

98 2883 F3 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207

26 INDIA

Fri Jul 1 15:14:20 1977 357.3 5 25 4.8 5 11 18.6 2883 F3 99.5 34.0 N 077.0 E 5.7 2439281 99.5 207 357.3 05-25-04.8 05-11-18. **QPMLVHCGSI** 26 INDIA - IIBET - SZECHWAN - YUNAN 302 FASTERN KASHMIR 98 2883 F4 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207 99.5 357.3 5 25 4.8 5 11 18.6 2883 F4 2439281 34.0 N 077.0 E 5.7 207 99.5 357.3 05-25-04.9 05-11-18. OPMLVHCGSI 26 INDIA - TIBET - SZECHMAN - YUNAN 302 FASTERN KASHMIR 99 2880 8M 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33 62.8 310.6 9 21 56.0 9 11 26.5 2880 BM 66/06/10 2439287 47.0 N 155.0 F 4.5 33 65.ª 310.0 09-21-56.0 09-11-26. VOSBLUEZHT 19 JAPAN - KURILES - KAMCHAIKA 222 KUPILE ISLANDS REGION 99 2880 F1 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33 62.8 310.6 9 21 56.0 9 11 26.5 2880 F1 66/06/10 2439287 47.0 N 155.0 F 4.5 62.8 09-21-56.0 09-11-26. 33 310.6 VIISBLUEZHT 19 JAPAN - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION 99 2880 F2 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33 62.8 310.6 9 21 56.0 9 11 26.5 2880 F2 66/06/10 2439287 47.0 N 155.0 F 4.5 62.8 310.6 09-21-56.0 09-11-26. 33 VOSBLUEZHT 19 JAPAN - KURILES - KAMCHAIKA 222 KURILE ISLANDS REGION 99 2880 F3 66 6 19 2439287 47.0 N 155.0 E 19 222 33. 33 62.8 310.0 9 21 56.0 9 11 26.5 2880 F3 06/06/10 2439287 47.0 N 155.0 E 4.5 33 62.9 310.0 09-21-56.0 09-11-26. 5 VUSBLUFZHT 19 JAPAN - KURTLES - KAMCHATKA 222 KUPILE ISLANDS REGION 99 2880 F4 55 5 10 2439287 47.0 N 155.0 E 19 222 33. 33 52.8 310.6 9 21 56.0 9 11 26.5 2880 F4 66/06/10 24392R7 47.0 N 155.0 F 4.5 33 62.A 310.6 09-21-56.0 09-11-26. VASBLUEZHT 19 JAPAN - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION 100 2326 RM 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454

76.3 320.5 9 10 50.4 A 58 58.1 2326 BM 66/06/30 43.6 N 132.2 F 5.4 2439307 320.5 454 76.3 09-10-50.4 08-58-58. 1 EPLPGUDVTH 51 S REG = 19,20 OR 41 AND D GT 300 561 NEAR E. COAST OF EASTERN RUS SIA

100 2326 F1 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454 76.3 320.5 9 10 50.4 8 58 58.1 2326 F1 66/06/30 43.6 N 132.2 E 5.4 2439507 454 76.3 320.5 09-10-50.4 08-58-58.

- 1 EPLPRODVTH 51 S REG = 19,20 OR 41 AMD D GT 300 661 MEAR E. COAST OF EASTERN RUS SIA
- 100 2326 F2 56 6 30 2439307 43.6 N 132.2 E 51 661454. 454 76.3 320.5 9 10 50.4 8 58 58.1 2326 F2 66/06/30 2439307 43.6 N 132.2 E 5.4 454 76.3 320.5 09-10-50.4 08-58-58.
- 1 EPLPOODVTH 51 S REG = 19,20 OR 41 AND D GT 300 661 NEAR L. COAST OF EASTERN RUS
- 100 2326 F3 56 6 30 2439307 43.6 N 132.2 E 51 661454. 454 76.3 320.5 9 10 50.4 8 58 58.1 2326 F3 66/06/30 2439307 43.6 N 132.2 E 5.4
- 454 76.3 320.5 09-10-50.4 08-58-58.

 1 EPLPGODYTH 51 S REG
 = 19,20 UR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
- 100 2326 F4 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454 76.3 320.5 9 10 50.4 8 58 58.1 2326 F4 66/06/30 2439307 43.6 N 132.2 E 5.4
- 454 76.3 320.5 09-10-50.4 08-58-58.

 1 EPLPGODVTH 51 S REG
 = 19,20 OR 41 AND D GT 300 661 MEAR E. COAST OF EASTERN RUS
 SIA
- 101 2904 RM 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40 93.9 292.9 9 59 48.1 9 46 27.4 2904 RM 66/07/07 2439314 12.6 N 144.2 E 5.3
- ZWITHYWORZL 210 SOUTH OF MARIANA ISLANDS
- 101 2904 F1 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40 93.9 292.9 9 59 48.1 9 46 27.4 2904 F1 66/07/07 2439314 12.6 N 144.2 E 5.3
- 40 93.9 202.9 09-59-48.1 09-46-27.
 4 ZATUYWOG7L 17 CAPOL
 INE ISLAMDS TO CHAM 210 SOUTH OF MARIANA ISLANDS
- 101 2904 F2 56 7 7 2439314 12.6 N 144.2 E 17 210 40. 40 93.9 292.3 9 59 48.1 9 46 27.4 2904 F2 66/07/07 2439314 12.6 N 144.2 F 5.3
- 40 93.9 202.9 09-59-48.1 09-46-27. 4 7WTUYWOQZL 17 CAROL THE ISLANDS TO GHAM 210 SOUTH OF MARIANA ISLANDS
- 101 2904 F3 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40 93.9 292.9 9 59 48.1 9 46 27.4 2904 F3 66/07/07 2439314 12.6 N 144.2 E 5.3
- 40 97.0 202.9 00-59-48.1 09-46-27.
 4 7NTUYWOQ7L 17 CAROL
 INF ISLANDS TO 5044 210 SOUTH OF MARTANA ISLANDS
- 101 2904 F4 56 7 7 2439314 12.5 N 144.2 E 17 210 40. 40 93.9 292.9 9 59 48.1 9 46 27.4 2904 F4 66/07/07 2439314 12.6 N 144.2 E 5.3 40 93.9 292.9 09-59-48.1 09-46-27.

17 CAROL ZWTUYWOQ7L THE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS 102 1178 BM 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28 66/08/19 77.3 310.1 12 58 17.3 12 46 19.7 1178 BM 141.7 E 5.5 2439357 36.4 N 77.3 310.1 12-58-17.3 12-46-19. ZROBOJSRLM 19 JAPAN 228 NEAR EAST COAST OF HONSHU, J - KURILES - KAMCHATKA APAN 102 1178 F1 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28 77.3 310.1 12 58 17.3 12 46 19.7 1178 F1 66/08/19 36.4 N 141.7 E 5.5 12-58-17.3 77.3 310.1 12-46-19. ZROBQJSRLM 19 JAPAN 228 NEAR EAST COAST OF HONSHU, J - KURILES - KAMCHATKA APAN 102 1178 F2 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28 77.3 310.1 12 58 17.3 12 46 19.7 1178 F2 66/08/19 36.4 N 141.7 F 5.5 77.3 12-58-17.3 310.1 12-46-19. 19 JAPAN 7 ZROBQJSRLM 228 NEAR EAST COAST OF HONSHU, J - KURILES - KAMCHATKA APAN 102 1178 F3 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28 77.3 310.1 17 56 17.3 12 46 19.7 1178 F3 66/08/19 36.4 M 141.7 F 5.5 2439357 77.3 310.1 12-58-17.3 12-46-19. 7 ZPOBGJSPLM 19 JAPAN 228 NEAR EAST COAST OF HONSHU, J - KURILES - KAMCHATKA APAN. 102 11/8 F4 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28 77.3 310.1 12 58 17.3 12 46 19.7 1178 F4 66/08/19 2439357 36.0 M 141.7 F 5.5 17.3 310.1 12-58-17.3 12-46-19. 7 ZPOBOJSKLE 19 JAPAN - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J 103 2014 BM 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335 68.5 315.9 2 38 16.2 2 27 10.1 2014 BM 06/09/10 5.2 46.6 M 144.1 F 2439379 335 o8.5 315.9 02-38-15.2 02-27-10. 1 VESJLOFECZ 51 S PEG = 19,20 JR 41 AND D GT 300 663 SEA OF OKHOTSK 103 2014 F1 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335 68.5 315.9 2 38 16.2 2 27 10.1 2014 F1 66/09/10 2439379 46.6 N 144.1 F 5.2 02-38-16.2 335 68.5 315.9 02-27-10. VESJLORECZ 51 S REG = 19,20 OF 41 AMD D GT 300 663 SEA OF OWHOTSK 103 2014 F2 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335 68.5 315.9 2 38 16.2 2 27 10.1 2014 F2 66/09/10 46.6 M 1 44.1 F 5.2 2439379 335 08.5 315.9 02-38-16.2 02-27-10. VESJLARECZ 51 S REG = 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

103 2014 F3 56 9 10 2439379 46.6 N 144.1 E 51 663335. 335

68.5 315.9 2 38 16.2 2 27 10.1 2014 F3 66/09/10 2439379 46.6 M 144.1 E 5.2 335 68.5 315.9 02-38-16.2 02-27-10. 1 VESJUARECZ 51 S PEG = 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK 103 2014 F4 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335 68.5 315.9 2 38 16.2 2 27 10.1 2014 F4 66/09/10 2439379 46.6 N 144.1 E 5.2 335 68.5 315.9 02-38-16.2 02-27-10. 1 VESJLORECZ 51 S REG = 19,20 UP 41 AND D GT 300 663 SEA OF UKHOTSK 104 1545 BM 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120 78.9 31.7 7 11 8.6 6 59 2.0 1545 BM 45.7 N 026.3 E 4.8 2439414 120 78.0 06-59-02. 31.7 07-11-08.6 0 HITLOVBOWJ 52 G REG 358 RUMANIA = 358 AND D GT 70 104 1545 F1 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120 78.9 31.7 7 11 P.6 6 59 2.0 1545 F1 66/10/15 2439414 45.7 N 026.3 F 4.8 150 78.0 31.7 07-11-08.6 06-59-02. O HITLOVEGWJ 52 G PEG = 358 AND D GT 70 358 RUMANIA 104 1545 F2 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120 78.9 31.7 7 11 8.6 6 59 2.0 1545 F2 66/10/15 45.7 N 026.3 E 4.8 2439414 78.9 31.7 07-11-08.6 06-59-02. 120 O HITLOVAGWU 52 G REG = 358 AND D GT 70 358 RUMANIA 104 1545 F3 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120 78.9 31.7 7 11 8.6 6 59 2.0 1545 F3 66/10/15 2/139414 45.7 N 026.3 F 4.8 120 78.9 31.7 07-11-08.6 06-59-02. O HITLOVAG#J 52 G REG = 358 AND D GT 70 350 PUMANIA 104 1545 F4 56 10 15 2439414 45.7 N 26.3 E 52 358120. 120 78.9 31.7 7 11 8.6 6 59 2.0 1545 F4 66/10/15 2439414 45.7 N 026.3 E 4.8 78.9 31.7 07-11-08.6 06-59-02. 120 1 HITLOVBOWJ 52 G REG = 358 AND D GT 70 358 PUMANIA 105 1660 BM 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20 82.4 38.4 2 51 51.7 2 39 26.7 1660 BM 66/10/29 2439428 39.2 N 021.2 F 5.7 50 42.4 38.4 02-51-51.7 02-30-26. CJLEFQVZJI 30 MIDDL F FAST - CRIMEA - MALKANS 364 GREECE 105 1660 F1 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20 A2.4 3H.4 2 51 51.7 2 39 26.7 1660 F1 66/10/29 2439428 39.2 N 021.2 F 5.7 20 82.4 38.4 02-51-51.7 02-39-26. 7 CJLFFGVZJI 30 MIDGL E EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F2 66 10 29 2439429 39.2 N 21.2 E 30 364 20. 20 82.4 38.4 2 51 51.7 2 39 26.7 1660 F2 66/10/29 2439428 39.2 N 021.2 F 5.7 20 82.4 38.4 02+51-51.7 02+39-26.

30 MIDDL

7 CJLFFQVZJI F EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F3 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20 82.4 38.4 2 51 51.7 2 39 26.7 1660 F3 66/10/29 2439428 39.2 N 021.2 F 5.7 20 82.4 38.4 02-51-51.7 02-39-26.

7 CJLFFQVZJI 30 MIDDL E EAST - CRIMEA - BALKANS 364 GREECE

20 82.4 38.4 02-51-51.7 02-39-26. 7 CJLFFQVZJI 30 MIDDL F EAST - CRIMEA - RALKANS 364 GREECE

106 1714 RM 66 11 R 243943R 52.4 N 173.0 E 1 5 41. 41 50.1 308.1 11 44 50.2 11 35 51.2 1714 RM 66/11/08 2439438 52.4 N 173.0 E 4.9

2 OHTOWHIYSL 11-44-50.2 11-35-51.
2 OHTOWHIYSL 1 ALASK
A - ALEUTIAN APC 5 NEAR ISLANDS, ALEUTIAN ISLANDS.

106 1714 F1 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41 50.1 308.1 11 44 50.2 11 35 51.2 1714 F1 66/11/08 2439438 52.4 N 173.0 E 4.9

2 OHTOWHTYSL 50.1 308.1 11-44-50.2 11 51. 2 OHTOWHTYSL : LASK A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

106 1714 F2 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41 50.1 308.1 11 44 50.2 11 35 51.2 1714 F2 66/11/08 2439438 52.4 N 173.0 E 4.9

2 OHTOWHIYSE 1 ALASK
A - ALEUTIAN ARC 5 MEAR ISLANDS, ALEUTIAN ISLANDS

106 1714 F3 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41 50.1 308.1 11 44 50.2 11 35 51.2 1714 F3 66/11/08 2439438 52.4 N 173.0 E 4.9

41 50.1 308.1 11-44-50.2 11-35-51.
2 RHTOWHIYSL 1 ALASK
A - ALEUTIAN APC 5 NEAR ISLANDS, ALEUTIAN ISLAN

DS 106 1714 F4 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41 50.1 308.1 11 44 50.2 11 35 51.2 1714 F4 66/11/08 2439438 52.4 N 173.0 E 4.9

2 OHTOWHTYSL 11-44-50.2 11-35-51.
2 OHTOWHTYSL 1 ALASK
4 - A' EUTIAN APC 5 NEAR ISLANDS, ALFUTIAN ISLANDS

107 1612 RM 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39 93.1 315.5 11 39 36.1 11 26 18.8 1612 BM 66/11/09

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26.9 N
 2439439
                  125.5 E
                            5.4
              39
                   93.1
                           315.5
                                   11-39-36.1 11-26-18.
    JUSVMLMDIC
                                                21 TATWA
                           245 NORTHEAST OF TAIWAN
107 1612 F1 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
       315.5 11 39 36.1 11 26 18.8 1612 F1
                                             66/11/09
 93.1
 2439439 26.9 N
                 125.5 F 5.4
              39
                    93.1
                           315.5
                                   11-39-36.1
                                               11-26-18.
    JUSYMEMOTO
                                                21 TAIWA
                          245 NORTHEAST OF TAIWAN
107 1612 F2 66 11 9 2439439 26.9 N 125.5 E 21 245 39.
 93.1 315.5 11 39 36.1 11 26 18.8 1612 F2 66/11/09
         26.9 N
 2439439
                  125.5 E 5.4
              39
                    93.1
                           315.5
                                   11-39-36.1
                                               11-26-18.
    JOSVMLMDIC.
                                                21 TAIWA
                          245 NORTHEAST OF TAIWAN
107 1612 F3 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
 93.1 315.5 11 39 36.1 11 26 18.8 1612 F3 66/11/09
 2439439 26.9 N 125.5 E 5.4
              39
                    93.1
                           315.5
                                  11-39-36.1
                                               11-26-18.
                                                ANIAT 15
    JUSYMEMDIC
                          245 NORTHEAST OF TAIWAN
Δí
107 1612 F4 06 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
        315.5 11 39 36.1 11 26 18.8 1612 F4
         26.9 1
                 125.5 E 5.4
 2439439
              39
                   93.1
                            315.5
                                   11-39-36.1
                                               11-26-18.
Д
    JUSYMEMDIC
                                                21 TAIWA
                          245 NORTHEAST OF TAIWAN
108 1674 RM 66 11 12 2439442-23.8 S -67.6 N 8 124126. 126
 78.5 144.4 12 2 19.7 11 50 15.3 1674 BM
                                             66/11/12
 2439442 23.8 $
                  067.6 M 5.6
                   7º.5
                           144.4
                                   12-02-19.7
                                               11-50-15.
             125
3 UZRCLBJQFZ
                          124 CHTLE-BOLIVIA BORDER REGTON
N SOUTH AMERICA
108 1674 F1 66 11 12 2439442-23.8 S -67.6 K 8 124126. 126
 78.5 144.4 12 2 19.7 11 50 15.3 1674 F1
                                             66/11/12
                           5.6
 2439442
          23.8 5
                  007.6 W
                   7A.5
                           144.4
                                   12-02-19-7
                                               11-50-15.
             122
3 UZRCLBJQFZ
                                                 A ANDEA
N SOUTH AMERICA
                          124 CHILE-BOLIVIA BORDER REGION
108 1674 F2 66 11 12 2439442-23.8 S -67.6 w 8 124126. 126
 78.5 144.4 12 2 19.7 11 50 15.3 1674 F2 66/11/12
         23.8 S
 2439442
                  067.6 W 5.6
                   7 P . S
                           144.4
                                                i1-50-15.
                                   12-02-19.7
             126
3 UZRCLBJWFZ
                                                 8 ANDEA
N SOUTH AMERICA
                          124 CHILE-RULIVIA BURDER REGION
108 1674 F3 66 11 12 2439442-23.8 S -67.0 N 8 124120. 126
 78.5 144.4 12 2 19.7 11 50 15.3 1674 F3
                                              66/11/12
         27.8 5
                  067.6 W 5.6
 2459442
                   7P.5
                           144.4
                                               11-50-15.
             126
                                   12-02-19.7
3 UZRCLBJQFZ
                                                 A ANDEA
M SOUTH AMERICA
                         124 CHILF-RULIVIA BORDER REGION
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108 1674 F4 66 11 12 2439442-23.8 S -67.6 w 8 124126. 126 78.5 144.4 12 2 19.7 11 50 15.3 1674 F4 66/11/12 067.6 W 5.6 23.8 S 2439442 78.5 12-02-19.7 11-50-15. 144.4 8 ANDEA 3 UZRCLBJQFZ N SOUTH AMERICA 124 CHILE-BULIVIA BORDER REGION 109 1675 BM 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33 72.0 312.4 13 1 6.0 12 49 38.0 1675 BM 66/11/12 144.1 E 5.8 41.8 N 2439442 312.4 72.0 13-01-06.0 12-49-38. 33 HMG V DWL DCJ 19 JAPAN - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 109 1675 F1 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33 72.0 312.4 13 1 6.0 12 49 38.0 1675 F1 2439442 41.8 M 144.1 F 5.8 33 72.0 13-01-06.0 12-49-38. 312.4 0 HMGVDWLUGJ 19 JAPAN - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 109 1675 F2 66 11 12 2439442 41.8 N 144.1 F 19 224 33. 33 72.0 312.4 13 1 6.0 12 49 38.0 1675 F2 66/11/12 5.8 2439442 41.8 N 144.1 F 33 72.0 312.4 13-01-06.0 12-49-38. HMGVQWLOGJ 19 JAPAN - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 109 1675 F3 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33 72.0 312.4 13 1 6.0 12 49 38.0 1675 F3 2439442 41.8 M 144.1 F 5.8 33 72.0 312.4 13-01-06.0 12-49-38. D HMGVQWLOGJ 19 JAPAN - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 109 1675 F4 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33 72.0 312.4 13 1 6.0 12 49 38.0 1675 F4 144.1 E 2459442 41.8 4 C 8 12-49-38. 33 72.0 312.4 13-01-06.0 HMGVOWLOGJ 19 JAPAN - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 110 2709 PM 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33 39.1 7 25 22.6 7 12 34.9 2709 BM 66/11/19 P6.9 35.0 N 023.5 E 5.3 33 86.9 39.1 2439449 07-25-22.6 07-12-34. 4 WPLKPGOGDR 30 MIDDL E EAST - CPIMEA - BALKANS 370 CRETE 110 2709 F1 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33 39.1 7 25 22.6 7 12 34.9 2709 F1 Po.9 66/11/19 35.0 N 023.5 F 5.3 33 86.9 39.1 2439449 86.9 07-25-22.6 07-12-34. 9 WPLKPGRGPR 30 MIDDL E FAST - CRIMEA - BALKANS 370 CRETE 110 2709 F2 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33 86.9 39.1 7 25 22.6 7 12 34.9 2709 F2 66/11/19

35.0 N 023.5 E

2430449

5.3

33 86.9 39.1 07-25-22.6 07-12-34. WPLKPGOGDR 30 MIDDL E EAST - CRIMEA - PALKANS 370 CRE1E 110 2709 F3 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33 39.1 7 25 22.6 7 12 34.9 2709 F3 66/11/19 Rb 9 35.0 N 023.5 E 2439449 5.3 86.9 33 39.1 07-25-22.6 07-12-34. 30 MIDDL 9 WPLKPGGGDR F EAST - CPIMEA - MALKANS 370 CRETE 110 2709 F4 66 11 19 2439449 35.0 N 23.5 F 30 370 33. 33 86.9 39.1 7 25 22.6 7 12 34.9 2709 64 66/11/19 2439449 35.0 N 023.5 E 5.3 33 86.9 39.1 07-25-22.6 07-12-34. 9 WPLKPGGGDR 30 MIDDL F EAST - CRIMEA - MALKANS 370 CRETE 111 2716 BM 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33 73.7 312.2 7 42 46.3 7 31 9.2 2716 BM 2439449 40.5 N 142.7 F 4.3 66/11/19 2439449 37 73.7 312.2 07-42-46.3 07-31-09. QILEPSIBOZ 19 JAPAN 228 MEAR EAST COAST OF HONSHU, J - KURILES - KAMCHATKA APAN 111 2716 F1 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33 73.7 312.2 7 42 46.3 7 31 9.2 2716 F1 66/11/19 2439449 40.5 N 142.7 F 4.3 33 73.7 312.2 07-42-46.3 07-31-09. 2 GILFPSTBOZ 19 JAPAN - KURILES - KAMCHATKA 228 MEAR EAST COAST OF HONSHU, J APAN 111 2716 F2 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33 73.7 312.2 7 42 46.3 7 31 9.2 2716 F2 66/11/19 40.5 N 142.7 E 4.3 2439449 77.7 312.2 07-42-46.3 07-31-09. 2 OILFPSI60Z 19 JAPAN - KURILES - KAMCHATKA 228 MEAR EAST COAST OF HONSHU, J APAN 111 2716 F3 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33 73.7 312.2 7 42 46.3 7 31 9.2 2715 F3 66/11/19 2439449 40.5 N 142.7 F 4.3 07-42-46.3 77.7 312.2 07-31-09. QTLFPST907 19 JAPAN - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J 111 2716 F4 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33 73.7 312.2 7 42 46.3 7 31 9.2 2716 F4 66/11/19 40.5 N 142.7 F 4.3 33 73.7 07-42-46.3 312.2 07-31-09. GILFPSIHOZ 19 JAPAN - KUHILES - KAMCHATKA 228 NEAR EAST CUAST OF HONSHU, J APAN 112 1613 BM 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40 64.3 311.6 12 30 .9 12 19 21.1 1613 BM 66/11/21 46.7 M 152.5 F 5.6 2439451 311.6 64.3 40 12-30-00.P 12-19-21. VVPTEPLGTJ 19 JAPAN

- KURILES - KAMCHATKA 221 KUPILE ISLANDS

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112 1613 F1 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .8 12 19 21.1 1613 F1
                 152.5 E
        46.7 N
                           5.6
 2439451
             40
                   64.3
                                  12-30-00.8
                                            12-19-21.
                          311.6
  VVPTEPLGIJ
                                               19 JAPAN
                         221 KUPILE ISLANDS
 - KURILES - KAMCHAIKA
112 1613 F2 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .R 12 19 21.1 1613 F2
                                            66/11/21
 2439451 46.7 N 152.5 F 5.6
                                12-30-00.8
             4.0
                  64.3
                          311.6
                                              12-19-21.
1 VVPTEPLQTJ
                                               19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS
112 1613 F3 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .R 12 19 21.1 1613 F3
          46.7 N 152.5 E 5.6
 2439451
             40
                 64.3
                                 12-30-00.8
                                             12-19-21.
                          311.6
1 VVPTEPLQIJ
                                               19 JAPAN
 - KURILES - KAMCHATKA
                         221 KURILE ISLANDS
112 1613 F4 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .R 12 19 21.1 1613 F4
         46.7 N 152.5 F 5.6
 2439451
             40
                   64.3
                         311.6 12-30-00.8
                                             12-19-21.
1 VVPTEPLGTJ
                                               19 JAPAN
 - KURILES - KAMCHATKA
                         221 KURILE ISLANDS
113 2722 PM 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 60.1 315.7 6 39 56.4 6 29 5.4 2722 BM
          48.2 N 146.7 F 5.6
2439452
                                              06-29-05.
                  66.1
                         315.7
                                  06-39-56.4
4 HUVJUCDUCL
                                               51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK
113 2722 F1 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 60.1 315.7 6 39 56.4 6 29 5.4 2722 F1
                                            66/11/22
        48.2 N 146.7 E 5.6
2439452
                         315.7 06-39-56.4
            453
                                              06-29-05.
                   06.1
4 HUVJUCDQCL
                                               51 S REG
= 19,20 OP 41 AND D GT 300 663 SEA OF OKHOTSK
113 2722 F2 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F2
                                            66/11/22
          48.2 N 146.7 F 5.6
 2439452
                         315.7
                                06-39-56.4
                                              06-29-05.
            453
                   66.1
4 HUVJUCDGCL
                                               51 S REG
= 19,20 UR 41 AND D GT 300 663 SEA OF OKHOTSK
113 2722 F3 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F3
          48.2 H 146.7 E 5.6
 2439452
                   56.1 315.7 06-39-56.4
            453
                                              06-29-05.
4 HUVJUCDGCL
                                              51 S REG
 = 19,20 UP 41 AND D GT 300 663 SEA OF OKHOTSK
113 2722 F4 on 11 22 2439452 48.2 N 140.7 E 51 603453. 453
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66.1 315.7 6 39 56.4 6 29 5.4 2722 64 66/11/22

06.1 315.7 06-39-56.4 06-29-05.

48.2 N 146.7 F 5.6

453

2439452

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HUVJUCDOCL
                                                51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK
114 2956 BM 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
 56.3 318.2 8 19 13.7 8 9 14.9 2956 BM
                                              66/11/29
 2439459 55.0 N
                 154.0 F 4.3
                   58.3
                          318.2
                                  08-19-13.7
                                               08-09-14.
             33
9 EGOLVPWWJM
                                                41 FASTE
RN ASIA
                          663 SEA OF OKHOTSK
114 2056 F1 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
 58.3 318.2 R 19 13.7 R 9 14.9 2956 F1
                                              66/11/29
        55.0 N
                 154.0 F 4.3
                   58.3
                                   08-19-13.7
                           318.2
             33
                                               08-09-14.
  EQOLVPWWJM
                                                41 FASTE
PN ASIA
                          663 SEA OF OKHOISK
114 2956 F2 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
 58.3 318.2 8 19 13.7 8 9 14.9 2956 F2
 2439459 55.0 N 154.0 E 4.3
                   58.3
                          318.2
                                 08-19-13.7
                                               08-09-14.
9 EQOLVPWv.JM
                                                41 FASTE
PN ASIA
                          663 SEA OF OKHOTSK
114 2956 F3 66 11 29 2439459 55.0 N 154.0 E 41 663 35. 33
 58.3 318.2 P 19 13.7 B 9 14.9 2956 F3
                                              06/11/29
        55.0 N 154.0 F 4.3
                   58.3
                          318.2
                                   08-19-13.7
                                               08-09-14.
             33
9 EQOLVEWWJM
                                                41 EASTE
                          663 SEA OF OKHOTSK
RN ASIA
114 2956 F4 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
 58.3 318.2 8 19 13.7 8 9 14.9 2956 F4
                                             66/11/29
2439459
        55.0 N 154.0 E 4.3
                  58.3
                                               08-09-14.
                          318.2 08-19-13.7
              33
   EGOLVPWWJM
                                                41 EASTE
RN ASIA
                          663 SEA OF OKHOTSK
115 11295 PM 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
 56.5 290.5 3 52 26.0 3 42 39.7 11295 BM
                                             73/05/05
          37.1 N
                 176.0 F
                          5.4
                   56.5
                           290.5
                                   03-52-26.0
                                               03-42-39.
7 WSHMPVQVLC
                                                39 PACIF
TC BASTN
                          611 NORTH PACIFIC OCFAN
115 11295 F1 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
 56.5 290.5 3 52 26.0 3 42 39.7 11295 F1 73/05/05
                 176.0 E 5.4
          37.1 N
                   56.5
                           290.5
                                  03-52-26.0
                                               03-42-39.
   WSHMPVQVLC
                                                39 PACIF
TC BASTN
                          611 NORTH PACIFIC OCEAN
115 11295 F2 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
 56.5 290.5 3 52 26.0 3 42 39.7 11295 F2 73/05/05
 2441408
          37.1 M
                 176.0 F 5.4
                   56.5
                           290.5
                                  03-52-26.0
                                               03-42-39.
             41
7 WSHMPVQVLC
                                               39 PACIF
                          611 NORTH PACIFIC OCFAN
JC BASTN
115 11295 F3 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
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JOZVL SBMSM

290.5 3 52 26.0 3 42 39.7 11295 F3 56.5 73/05/05 37.1 N 5.4 176.0 E 2441808 03-42-39. 41 56.5 290.5 03-52-26.0 39 PACIF WSHMPVQVLC 611 NORTH PACIFIC OCEAN TC BASTN 115 11295 F4 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41 290.5 3 52 26.0 3 42 39.7 11295 F4 73/05/05 37.1 N 176.0 E 5.4 2441808 03-42-39. 56.5 03-52-26.0 41 290.5 WSHMPVQVLC 39 PACIF 611 NORTH PACIFIC OCFAN IC BASIN 116 11300 BM 73 5 R 2441R11 45.6 N 149.6 E 19 221 95. 95 66.5 312.2 7 48 50.0 7 38 5.5 11300 BM 73/05/08 45.6 N 149.6 F 5.4 2441811 66.5 07-48-59-0 07-38-05. 312.2 19 JAPAN OWPLRHEHTG 221 KUPILE ISLANDS - KURILES - KAMCHATKA 116 11300 F1 73 5 A 2441A11 45.6 N 149.6 E 19 221 95. 95 73/05/0R 66.5 312.2 7 48 59.0 7 38 5.5 11300 F1 45.6 N 149.6 F 5.4 2441811 95 07-48-59.0 07-38-05. 66.5 312.2 5 QWPLPHF4TG 19 JAPAN 221 KUPILE ISLANDS - KURILES - KAMCHATKA 116 11300 F2 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95 66.5 312.2 7 48 59.0 7 38 5.5 11300 F2 73/05/08 2441811 45.6 N 149.6 E 5.4 07-48-59.0 07-38-05. 66.5 312.2 95 19 JAPAN 5 QUPLEHENTG - KURILES - KAMCHATKA 221 KURILE ISLANDS 116 11300 F3 73 5 P 2441811 45.6 N 149.6 E 19 221 95. 95 66.5 312.2 7 48 59.0 7 38 5.5 11300 F3 73/05/08 5.4 2441811 45.6 N 149.6 E 07-38-05. 07-48-59.0 66.5 95 312.2 19 JAPAN OWPLRHEHTG 221 KURILE ISLANDS - KURILES - KAMCHATKA 116 11300 F4 73 5 R 2441811 45.6 N 149.6 E 19 221 95. 95 66.5 312.2 7 48 59.0 7 38 5.5 11300 F4 73/05/08 45.6 N 149.6 F 2441811 5.4 07-48-59.0 07-38-05. 312.2 06.5 19 JAPAN 5 OWPLRHEHTG 221 KURILE ISLANDS - KURILES - KAMCHATKA 117 11383 BM 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61 46.4 304.2 11 39 31.0 11 31 .9 11383 BM 73/05/10 179.5 M 5.3 2441813 51.4 N 304.2 11-39-31.0 11-31-00. 46.4 JOZVLSAMSM 1 ALASK A - ALFUTIAN ARC 7 ANDREAMOF ISLANDS, ALEUTIAN 117 11383 F1 73 5 10 2441813 51.4 N=179.5 W 1 7 61. 61 46.4 304.2 11 39 31.0 11 31 .9 113R3 F1 73/05/10 51.4 N 179.5 W 5.3 2441813 11-39-31.0 46.4 304.2 11-31-00. 61

1 ALASK

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A - ALEUTIAN ARC
                             7 ANDREANUF ISLANDS, ALEUTIAN
IS.
117 11383 F2 73 5 10 2441813 51.4 N=179.5 W 1
                                              7 61. 61
 46.4 304.2 11 39 31.0 11 31 .9 113A3 F2
                                               73/05/10
                 179.5 W 5.3
         51.4 N
 2441613
              61
                   46.4
                           304.2
                                   11-39-31.0
                                                11-31-00.
   JUZVESBMSM
                                                  1 ALASK
A - ALEUTIAN ARC
                            7 ANDREANOF ISLANDS, ALEUTIAN
IS.
117 11383 F3 73 5 10 2441813 51.4 N=179.5 W 1
                                                7 61. 61
 46.4 304.2 11 39 31.0 11 31 .9 11383 F3
                                               73/05/10
                 179.5 4
                            5.3
 2441813
         51.4 N
                   46.4
                            304.2
                                   11-39-31.0
                                                11-31-00.
   JOZVLSBMSM
                                                  1 ALASK
                             7 ANDREAMOF TSLANDS, ALEUTIAN
A - ALEUTIAN ARC
IS.
117 11383 F4 73 5 10 2441813 51.4 N-179.5 W 1
                                               7 61. 61
 46.4 304.2 11 39 31.0 11 31 .9 11383 F4
                                               73/05/10
                 179.5 W
                            5.3
         51.4 N
                                   11-39-31.0
                                                11-31-00.
                   46.4
                            304.2
  JUZVESBMSM
                                                  1 ALASK
A - ALEUTIAN ARC
                             7 ANDREAMOF ISLANDS, ALEUTTAN
TS.
118 11304 FM 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
 27.7 177.1 17 50 53.0 17 45 1.4 11304 BM
                  104.8 14
                           5.0
         19.0 N
                           177.1
                   27.7
                                  17-50-53.0
                                                17-45-01.
  KUTLWQSPOR
                                                  5 MEXIC
O - GUATEMALA AREA
                           55 NEAR COAST OF JALISCO, MEXIC
118 11304 F1 73 5 10 2441813 19.0 N-104.8 A 5 55 33. 33
 27.7 177.1 17 50 53.0 17 45 1.4 11304 F1
                                               73/05/10
                           5.0
 2441813 19.0 N 104.8 M
                   27.7
                                   17-50-53.0
                                                17-45-01.
                           177.1
  KUTLAGSPOB
                                                  5 MEXIC
O - GUATEMALA ARFA
                           55 NEAR COAST OF JALISCO, MEXIC
n
118 11304 F2 73 5 10 2441813 19.0 N=104.8 n 5 55 33. 33
 27.7 177.1 17 50 53.0 17 45 1.4 11304 F2
                                               73/05/10
                           5.0
 2441813 19.0 M
                 104.8 W
                                                17-45-01.
              33
                   27.7
                           177.1
                                   17-50-53.0
  KUTEWASPAB
                                                  5 MEXIC
O - GUATEMALA AREA
                            55 MEAR COAST OF JALISCO, MEXIC
118 11304 F3 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
 27.7 177.1 17 50 53.0 17 45 1.4 11304 F3
                                               73/05/10
 2441813 19.0 N
                 104.R W
                           5.0
                    27.7
                            177.1
                                   17-50-53.0
                                                17-45-01.
   KUTLWQSPOB
                                                  5 MEXIC
N - GUATEMALA AREA
                            55 NEAR COAST OF JALISCO, MEXIC
118 11304 F4 73 5 10 2441813 19.0 N-104.8 N 5 55 33. 33
 27.7 177.1 17 50 53.0 17 45 1.4 11304 F4
                                               73/05/10
          19.0 N
                  104.8 M
                            5.0
                                                17-45-01.
                    27.7
                           177.1
                                   17-50-53.0
                                                  5 MEYIC
  KUTLWQSPAB
O - GUATEMALA ARFA
                           55 MEAR COAST OF JALISCO, MEXIC
119 11312 BM 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
  68.2 311.8 2 19 1.0 2 7 56.5 11312 BM
                                             73/05/14
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2441817 44.1 N 148.2 E 5.5 5.80 311.8 02-19-01.0 02-07-56. 64 DSMHMMQHSL 19 JAPAN - KURILES - KAMCHATKA 221 KURILE ISLANDS 119 11312 F1 73 5 14 2441817 44.1 N 148.2 E 19 721 64. 64 68,2 311.8 2 19 1.0 2 7 56.5 11312 F1 73/05/14 44.1 N 148.2 F 5.5 2441817 64 68.2 311.8 02-19-01-0 02-07-56. OSMHMMRHSL 19 JAPAN 221 KURILE ISLANDS - KURILES - KAMCHATKA 119 11312 F2 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64 68.2 311.8 2 19 1.0 2 7 56.5 11312 F2 2441817 44.1 N 148.2 F 5.5 73/05/14 68.2 311.8 02-19-01.0 02-07-56. 64 5 DSMBMMQHSL 19 JAPAN - KURILES - KAMCHATKA 221 KUPILE ISLANDS 119 11312 F3 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64 68.2 311.8 2 19 1.0 2 7 56.5 11312 F3 44.1 N 14P.2 E 5.5 2441817 6ª,2 64 311.8 02-19-01.0 02-07-56. DSMBMMQHSL 19 JAPAN 221 KUPILE ISLANDS - KURILES - KAMCHATKA 119 11312 F4 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64 68.2 311.8 2 19 1.0 2 7 56.5 11312 F4 73/05/14 44.1 N 148.2 E 5.5 2441817 64 68.2 311.8 02-19-01.0 02-07-56. 5 DSMBMMQHSL 19 JAPAN - KURILES - KAMCHATKA PS1 KURILE ISLANDS 120 11316 BM 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33 92.3 353.6 9 38 9.0 9 24 55.6 11316 BM 73/05/17 2441820 41.0 N 082.2 E 5.5 33 92.3 353.6 09-38-09.0 09-24-55. TUTUDDYEML 27 SOUTH 321 SOUTHERN SINKLANG PROV., CHI ERN SINKIANG TO KANSH 120 11316 F1 73 5 17 2441R20 41.0 N 82.2 E 27 321 33. 33 92.3 353.6 9 38 9.0 9 24 55.6 11316 F1 73/05/17 2441820 41.0 N 082.2 E 5.5 33 92.3 353.6 09-38-09.0 09-24-55. 6 TOTUDDYEML 27 SOUTH ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI NΛ 120 11316 F2 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33 92.3 353.6 9 38 9.0 9 24 55.6 11316 F2 73/05/17 2441820 41.0 N 087.2 F 5.5 353.6 09-38-09.0 09-24-55. 33 92.3 TOTUDDYEML 27 SOUTH FRN SINKLANG TO KANS! 321 SOUTHERN SINKIANG PROV., CHI 120 11316 F3 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 92.3 353.6 9 38 9.0 9 24 55.6 11316 F3 73/05/17 41.0 N 082.2 F 5.5 2441820 92.3 353.6 09-38-09.0 09-24-55. 33 TATUDDYEML 27 SOUTH EPH SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI

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120 11316 F4 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
 92.3 353.6 9 38 9.0 9 24 55.6 11316 F4
                                            73/05/17
 2441820 41.0 N 082.2 E 5.5
                                 09-38-09.0
                                               09-24-55.
                   92.3
                          353.6
              33
   TOTUDDYEML
                                                27 SOUTH
ERN SINKIANG TO KANSU
                         321 SOUTHERN SINKIANG PROV., CHI
121 11324 BM 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 BM
                                              73/05/24
          51.6 N 173.4 W 5.4
 2441827
                   42.A
              43
                           302.3
                                 18-47-11.0
                                               18-39-09.
  DSPWREPLFE
                                                 1 ALASK
A - ALEUTIAN ARC
                            7 ANDREANOF ISLANDS, ALEUTIAN
TS.
121 11324 F1 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F1
                                             73/05/24
 2441827 51.6 N 173.4 w 5.4
              43
                   42.8
                          302.3 18-47-11.0
                                               18-39-09.
   DSPWORPLEE
                                                1 ALASK
                            7 ANDREAMOF ISLANDS, ALEUTIAN
A - ALEUTIAN ARC
IS.
121 11324 F2 73 5 24 2441827 51.6 N-173.4 w 1
                                             7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F2
                                             73/05/24
 2441827
        51.6 N 173.4 W 5.4
                   42.B
                           302.3
             43
                                  18-47-11.0
                                               18-39-09.
6 DSPWOBPLE
                                                 1 ALASK
A - ALFUTIAN ARC
                            7 ANDREANOF ISLANDS, ALEUTIAN
IS.
121 11324 F3 73 5 24 2441827 51.6 N=173.4 w 1
                                              7 43. 43
42.8 302.3 18 47 11.0 18 39 9.6 11324 F3 2441827 51.6 N 173.4 w 5.4
                                              73/05/24
         51.6 N 173.4 W 5.4
              43
                   42.8
                           302.3 18-47-11.0
                                               18-39-09.
  DSPWORPLEE
                                                 1 ALASK
A - ALEUTIAN ARC
                            7 ANDREAMOF ISLANDS, ALEUTTAN
IS.
121 11324 F4 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F4
                                              73/05/24
 2441827 51.6 N 173.4 W 5.4
                           302.3
                                 18-47-11.0
                   42.8
                                               18-39-09.
             43
 DSPWOBPLFE
                                                1 ALASK
A - ALEUTIAN APC
                            7 ANDREAMOF ISLANDS, ALEUTIAN
IS.
122 11350 RM 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 bM 73/05/29
         73.7 N 0 9.5 E 4.8
 2441832
                  52.2
                                 04-51-57.0
              33
                            18.7
                                               04-42-42.
   7KULVQCK OG
                                                40 ARCTI
C ZUNE
                          640 GREENLAND SEA
122 11330 F1 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
         18.7 4 51 57.0 4 42 42.0 11330 F1
         73.7 N 0 9.5 F 4.8
                   52.2
              33
                           14.7
                                  04-51-57.0
                                             04-42-42.
   ZKULVGCKOG
                                               40 ARCTI
C ZOME
                          640 GREENLAND SEA
122 11330 F2 73 | 5 29 2441832 73.7 N | 9.5 E 40 640 33. | 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F2 73/05/29
2441832 13.7 11 0 9.5 E 4.8
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52.2
                          18.7 04-51-57.0
                                            04-42-42.
             33
0 ZKULVQCKOG
                                              40 ARCTI
C ZONE
                         640 GREENLAND SEA
122 11330 F3 73 5 29 2441832 73.7 N 9.5 E 40 640 33.
       18.7 4 51 57.0 4 42 42.0 11330 F3 73/05/29
        73.7 4
 2441832
                 0 9.5 E 4.8
             33
                  52.2
                          18.7
                                 04-51-57.0
                                            04-42-42.
O ZKULVOCKOG
                                              40 ARCTT
C ZONE
                         640 GREENLAND SEA
122 11330 F4 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F4
                                            73/05/29
        73.7 N 0 9.5 E 4.8
 2441832
             33
                  52.2
                          18.7
                                04-51-57.0
                                             04-42-42.
0 ZKULVUCKOG
                                              40 ARCTI
C ZONE
                         640 GREENLAND SEA
123 11331 BM 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 b 7 12.7 11331 BM
                                            73/05/29
                163.8 W 6.0
        54.0 M
2441832
             30
                  36.5
                          303.3
                                06-14-22.0
                                            00-07-12.
  VLRFBQRZCR
                                               1 ALASK
A - ALEUTIAN ARC
                          10 UNIMAK ISLAND REGION
123 11331 F1 73 5 29 2441832 54.0 N=163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F1
                                            73/05/29
2441832 54.0 N 163.8 W 6.0
             30
                  36.5
                         303.3 06-14-22.0
                                             06-07-12.
7 VERFBORZER
                                              1 ALASK
A - ALFUTIAN APC
                          10 UNIMAK ISLAND REGION
123 11331 F2 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 30.5 303.3 6 14 22.0 6 7 12.7 11331 F2 73/05/29
2441832 54.0 N
                163.8 W 6.0
             30
                  36.5
                         303.3
                                06-14-22.0
                                            06-07-12.
  VLREBURZOR
                                               1 ALASK
A - ALEUTIAN ARC
                          10 UNIMAK ISLAND REGION
123 11331 F3 73 5 29 2441832 54.0 N=163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 b 7 12.7 11331 F3
                                           73/05/29
2441832 54.0 N 163.8 W 6.0
                  36.5
                         303.3 06-14-22.0
             30
                                             06-07-12-
 VLRF8GRZCR
                                              1 ALASK
A - ALEUTIAN ARC
                          10 UNIMAK ISLAND REGION
123 11331 F4 73 5 29 2441R32 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F4
                                            73/05/29
                163.8 W 6.0
 2441832 54.0 N
             30
                         303.3
                  36.5
                                06-14-22.0
                                             06-07-12.
  VLREBGRZCR
                                               1 ALASK
A - ALEUTIAN ARC
                          10 UNIMAK ISLAND REGION
124 11022 BM 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 BM
                                          73/06/07
2441841 14.2 N 091.9 W 5.7
                   34.6
                         155.0 18-34-46.0
             7.0
                                             18-27-53.
 DUTTOKZEPL
                                               5 MEXIC
O - GUATEMALA AREA
                         71 NEAR COAST OF GUATEMALA
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33

124 11022 F1 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70 34.6 155.0 18 34 46.0 18 27 53.5 11022 F1 73/06/07 14.2 N 091.9 W 5.7 2441841 18-34-46.0 18-27-53. 7.0 34.6 155.0 5 MEXIC 5 DUTTOKZEPL N - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA 124 11022 F2 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70 73/06/07 34.6 155.0 19 34 46.0 18 27 53.5 11022 F2 2441841 14.2 M 091.9 M 5.7 155.0 18-27-53-18-34-46.0 7.0 34.6 5 MEXIC DUTTOKZEPL 71 NEAR COAST OF GUATEMALA O - GUATEMALA ARFA 124 11022 F3 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70 34.6 155.0 18 34 46.0 18 27 53.5 11022 F3 73/06/07 091.9 W 5.7 2441841 14.2 N 34.6 155.0 18-34-46.0 18-27-53. 70 5 MEXIC 5 DUTICKZEPL 71 NEAR COAST OF GUATEMALA O - GUATEMALA AREA 124 11022 F4 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70 34.6 155.0 18 34 46.0 18 27 53.5 11022 F4 73/06/07 2441841 14.2 N 091.9 W 5.7 155.0 18-27-53. 34.6 18-34-46.0 5 MEXIC DUTTOKZEPL 71 NEAR COAST OF GUATEMALA O - GUATEMALA ARFA 125 11023 RM 73 6 9 2441R43 39.4 N 95.4 E 27 322 33. 33 92.1 343.4 8 18 32.0 8 5 19.7 11023-8M 73/06/09 39.4 N 095.4 F 5.0 2441843 08-05-19. 92.1 343.4 08-18-32.0 33 27 SOUTH 7 UTSGLQZEHY ERN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA 125 11023 F1 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33 92.1 343.4 8 18 32.0 8 5 19.7 11023 F1 73/06/09 39.4 N 095.4 F 5.0 2441843 53 92.1 343.4 08-18-32.0 08-05-19. 27 SOUTH 7 UISGLGZEHY ERN SINKTANG TO MANSH 322 KANSU PROVINCE, CHINA 125 11023 F2 73 6 9 2441 F43 39.4 N 95.4 E 27 322 33. 33 92.1 343.4 8 18 32.0 8 5 19.7 11023 F2 73/06/09 39.4 N 095.4 F 5.0 2441843 33 92.1 343.4 08-18-32.0 08-05-19. 27 SOUTH 7 UTSGLGZEHY FRN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA 125 11023 F3 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33 92.1 343.4 R 18 32.0 8 5 19.7 11023 F3 73/06/09 2441843 39.4 N 095.4 F 5.0 2441843 92.1 343.4 08-18-32.0 08-05-19. 33 27 SOUTH UTSGLGZEHY ERN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA 125 11023 F4 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33 92.1 343.4 8 18 32.0 8 5 19.7 11023 F4 73/06/09 2441843 30.4 N 095.4 E 5.0

92.1 343.4 08-18-32.0 08-05-19.

LDTDPWHRCE

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27 SOUTH
  UTSGLQ7EHY
FRM SINKIANG TO KANSU
                         322 KANSH PROVINCE, CHINA
126 11089 BM 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 RM 73/06/10
2441844 39.5 N 074.8 E 5.2
                  94.1
                                16-08-42.0
                                              15-55-20.5
                         359.2
             33
  WBKULBTQVF
                                              27 SOUTHE
RN SINKIANG TO KANSU
                        321 SOUTHERN SINKIANG PROV., CHIN
126 11089 F1 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
 94.1 359.2 16 8 42.0 15 55 20.5 11089 F1 73/06/10
                 074.8 E
                           5.2
 2441844
         39.5 N
                                               15-55-20.
              33
                  94.1
                           359.2
                                  16-08-42.0
   WBKULBTOVE
                                                27 SOUTH
                         321 SOUTHERN SINKIANG PROV., CHI
EPH SINKIANG TO KANSU
126 11089 F2 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
 94.1 359.2 16 8 42.0 15 55 20.5 11089 F2
                                              73/06/10
 2441844 39.5 N
                 074.8 F
                           5.2
                   94.1
                           359.2
                                 16-08-42.0
                                               15-55-20.
              33
5 WERULBIGVE
                                                27 SOUTH
FRN SINKIANG TO KANSU
                         321 SOUTHERN SINKLANG PROV., CHI
126 11089 F3 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
 94.1 359.2 16 8 42.0 15 55 20.5 11089 F3
                                             73/06/10
                 074.8 E 5.2
 2441844
        39.5 N
             33
                  94.1
                           359.2
                                  16-08-42.0
                                              15-55-20.
  WBKULBTQVF
                                               27 SOUTH
ERM SIMKIANG TO KAMSU
                         321 SOUTHERN SINKIANG PROV., CHI
NΙΔ
126 11089 F4 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
 94.1 359.2 16 8 42.0 15 55 20.5 11089 F4 73/06/10
 2441844 39.5 N 074.8 F 5.2
                          359.2 16-08-42.0
                   94.1
                                               15-55-20.
  WBKULBTQVF
                                                27 SOUTH
                         321 SOUTHERN SINKIANG PROV., CHI
FRM SINKIANG TO KANSU
NLΔ
127 11028 BM 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 BM
                                             73/06/16
          37.7 N 095.6 F 5.4
 2441850
                  93.7
                          342.9
              33
                                  07-22-48.0
                                              07-09-28.
4 LDTDPWUGCE
                                                27 SOUTH
FRN SINKIANG TO KANSU
                         325 TSINGHAI PROVINCE, CHINA
127 11028 F1 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F1
                                            73/06/16
 2441850 37.7 N 095.6 F 5.4
                   93.7
                          342.9
                                 07-22-48.0
                                               07-09-28.
              33
   LOTOPWURCE
                                               27 SOUTH
ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA
127 11028 F2 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F2 73/06/16
          37.7 N 095.6 F 5.4
 2441850
                   93.7
                          342.9
                                 07-22-48-0
                                              07-09-28.
              37
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ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

27 SOUTH

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127 11028 F3 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F3
                                            73/06/16
          37.7 N
                095.6 E
                           5.4
              33
                  93.7
                          342.9
                                  07-22-48-0
                                              07-09-28-
   LDTDPWURCE
                                               27 SOUTH
                         325 TSINGHAI PROVINCE, CHINA
ERN SINKIANG TO KANSU
127 11028 F4 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F4
                                            73/00/16
2441850 37.7 N 095.6 F 5.4
                                              07-09-28.
                  93.7
                          342.9
                                07-22-48-0
             33
4 LDTDPWUGCE
                                               27 SOUTH
ERN SINKIANG TO KAMSU
                         325 TSINGHAI PROVINCE, CHINA
128 11032 BM 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 8M
                                            73/00/17
2441851 43.2 N 145.8 F 6.5
             48
                  70.1
                          312.4
                                  03-55-02.0
                                              03-43-46.
 LMEDJIZCKO
                                              19 JAPAN
- KURILES - KAMCHATKA
                         224 HOKKAIDO, JAPAN, REGION
128 11032 F1 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F1
                                            73/06/17
2441851 43.2 M 145.8 E 6.5
             44
                  70.1
                          312.4
                                03-55-02.0
                                              03-43-46.
1 LMEDJIZCKO
                                              19 JAPAN
 - KURILES - KAMCHATKA
                        224 HOKKAIDO, JAPAN, REGION
128 11032 F2 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F2
                                            73/06/17
2441851 43.2 N 145.8 F 6.5
                                  03-55-02.0
             48
                  70.1
                          312.4
                                              03-43-46.
  LMEDJI7CKG
                                              19 JAPAN
- KURTLES - KAMCHATKA
                        224 HOKKAIPO, JAPAN, REGION
128 11032 F3 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F3
                                            73/06/17
2441851 43.2 N 145.8 F 6.5
                          312.4
                                  03-55-02.0
             40
                   70.1
                                              03-43-46.
1 LMEDJIZCKO
                                              19 JAPAN
 - KUPILES - KAMCHATKA
                        224 HOKKAIDO, JAPAN, REGION
128 11032 F4 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F4
                                            73/06/17
        43.2 N 145.8 E 6.5
2441851
             48
                  70.1
                          312.4
                                  03-55-02.0
                                              03-43-46.
 LMFDJIZCKG
                                              19 JAPAN
- KURTLES - KAMCHATKA
                        224 HOKKAIDO, JAPAN, REGION
129 11034 FM 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 BM
                                            73/06/24
2441858 43.3 N 146.4 F 6.3
             50
                   09.7
                         312.1
                                02-43-25.0
                                              02-32-11.
6 LOCBCEKCYH
                                               19 JAPAN
 - KURTLES - KAMPHATKA
                        221 KUPILE ISLANDS
129 11034 F1 73 6 24 2441858 43.3 N 140.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 F1
                                            73/06/24
2441858 43.3 N 146.4 F 6.3
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312.1

02-43-25.0 02-32-11.

50

pa.7

LSCBCEKQYH

19 JAPAN

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- KURTLES - KAMCHATKA 221 KUPILE ISLANDS
129 11034 F2 73 6 24 2441858 43.3 9 146.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 F2
                                            73/06/24
        43.3 N 146.4 E 6.3
2441858
                  69.7
                          312.1
                                02-43-25.0
                                             02-32-11.
             50
                                              19 JAPAN
  LSCBCEKQYH
                     221 KURILE ISLANDS
- KURTLES - KAMCHATKA
129 11034 F3 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 F3
                                            73/06/24
          43.3 N 146.4 F 6.3
2441858
                  69.7
                                  02-43-25.0
                                              02-32-11.
             50
                          312.1
  LSCALFKOAH
                                               19 JAPAN
                     221 KURILE ISLANDS
- KURILES - KAMCHAIKA
129 11034 F4 73 6 24 2441858 43.3 N 106.4 F 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 F4 73/06/24
 2441858
         43.3 N 146.4 E
                           6.3
                                             02-32-11.
                   09.7
                           312.1
                                02-43-25.0
                                               19 JAPAN
6 LSCBCEKQYH
- KURILES - KAMCHATKA 221 KUPILE ISLANDS
130 11095 RM 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
 92.9 355.9 13 11 11.0 12 57 54.7 11095 BM
                                             73/06/27
         40.6 N 079.2 E
                           5.0
 2441861
                  92.0
                           355.9
                                  13-11-11.0
                                              12-57-54.
             33
                                               27 SOUTH
7 CVELOMJUSO
ERN SINKIANG TO KANSH 321 SOUTHERN SINKIANG PROV., CHI
NΔ
130 11095 F1 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
 92.9 355.9 13 11 11.0 12 57 54.7 11095 Ft 73/06/27
 2441861
         40.6 N 079.2 E 5.0
             33
                   92.9
                          355.0
                                13-11-11.0
                                             12-57-54.
  CVFLOMJUSA
                                               27 SOUTH
ERN SINKIANG TO KANSU 321 SUUTHERN SINKIANG PROV., CHI
MΔ
130 11095 F2 73 6 27 2441861 40.6 th 79.2 E 27 321 33. 33
 92.9 355.9 13 11 11.0 12 57 54.7 11095 F2
                                             73/96/27
 2441861 40.6 N 079.2 F 5.0
                  92.0
                          355.9
                                              12-57-54.
             33
                                13-11-11.0
7 CVFLOMJUSG
                                               27 SOUTH
                        321 SOUTHERN SINKIANG PROV., CHI
FRN SINKTANG TO KANSU
NΔ
130 11095 F3 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
 92.9 355.9 13 11 11.0 12 57 54.7 11095 F3 73/06/27
                          5.0
          40.6 N 079.2 E
 2441861
                  92.0
                          355.9
                                              12-57-54.
                                13-11-11.0
              33
                                               27 SOUTH
  CVFLOMJUSQ
                        321 SOUTHERN STAKLANG PROV., CHI
ERN SIMKTANG TO KANSH
MΑ
130 11095 F4 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
 92.9 355.9 13 11 11.0 12 57 54.7 11095 F4 73/06/27
 2441861 40.6 M 079.2 F 5.0
                  92.9
                          355.9
                                              12-57-54.
                                  13-11-11.0
                                               27 SOUTH
  CVELOMJUSA
                        321 SUUTHERN SINKIANG PROV., CHI
FRM SINKTANG TO KANSH
131 11105 PM 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24
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33

RZEKVZHOLU

299.1 2 23 20.0 2 10 26.3 11105 HM 88.1 73/06/29 21.1 N 143.1 F 2441863 5.7 24 88.1 299.1 02-23-20.0 02-10-26. REULSYGIEH 18 GUAM TO JAPAN 215 MARIANA ISLANDS PEGION 131 11105 F1 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24 88.1 299.1 2 23 20.0 2 10 26.3 11105 F1 73/06/29 2441863 21.1 N 143.1 E 5.7 299.1 8º.1 02-10-26. 24 02-23-20.0 **OFILLSYGTEH** 18 GUAM TO JAPAN 215 MAPIANA ISLANDS REGION 131 11105 F2 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 73/06/29 A8.1 299.1 2 23 20.0 2 10 26.3 11105 F2 21.1 N 143.1 F 5.7 24 88.1 299.1 02-23-20.0 02-10-26. 3 REULSYGIEH 18 GUAM TU JAPAN 215 MARIANA ISLANDS REGION 131 11105 F3 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24 88.1 299.1 2 23 20.0 2 10 26.3 11105 F3 73/06/29 2441863 21.1 N 143.1 E 5.7 24 88.1 209.1 02-10-26. 0.05-23-20.0 QFULSYGTEH 18 GUAM TO JAPAN 215 MARIANA ISLANDS PEGION 131 11105 F4 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24 88.1 299.1 2 23 20.0 2 10 26.3 11105 F4 73/06/29 2441863 21.1 M 143.1 E 5.7 24 02-23-20.0 02-10-26. PP.1 299.1 18 GUAM 3 OFULSYGIFH TU JAPAN 215 MARIANA ISLANDS PEGION 132 11042 8M 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33 105.5 307.5 7 3 43.0 6 49 30.2 11042 BM 73/07/03 12.2 % 125.3 F 6.1 307.5 105.5 37 07-03-43.0 06-49-30. 22 PH'LI RZEKVZHOLU PPINES 251 SAMAR, PHILIPPINE ISLANDS 132 11042 F1 /3 / 3 2441867 12.2 N 125.3 E 22 251 33. 33 105.5 307.5 7 3 43.0 6 49 30.2 11042 F1 73/07/03 12.2 1 125.3 F 6.1 105.5 07-03-43.0 00-49-30. 33 307.5 2 RZFKVZHQLU 22 PHILT **PPINES** 251 SAMAR, PHILIPPINE ISLANDS 132 11042 F2 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33 105.5 307.5 7 3 43.0 6 49 30.2 11042 F2 73/07/03 12.2 M 125.3 E 6.1 2441367 33 105.5 307.5 07-03-43-0 00-49-30-22 PHILI RZEKVZHOLU PPIMES 251 SAMAR, PHILIPPINE ISLANDS 132 11042 F3 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33 105.5 307.5 7 3 43.0 6 49 30.2 11042 F3 73/07/03 2441867 12.2 N 125.3 F 6.1

105.5 307.5 07-03-43.0

06-49-30.

25 BHILI

251 SAMAR, PHILIPPINE ISLANDS

132 11042 F4 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33 105.5 307.5 7 3 43.0 6 49 30.2 11042 F4 73/07/03 2441867 12.2 N 125.3 F 6.1 105.5 307.5 33 07-03-43.0 06-49-30. RZEKVZHGLU 25 BHILI 251 SAMAR, PHILIPPINE TSLANDS PPINES 133 11038 BM 73 / 1 2441865 57.8 N-137.3 W 2 20 33. 33 21.8 312.1 13 33 34.0 13 28 38.0 11038 BM 73/07/01 137.3 W 2441865 57.8 N 6.1 33 21.8 312.1 13-33-34.0 13-28-38. FYSWULRQUP 2 FASTE RN ALASKA TU VANCUUVER ISLA 20 OFF COAST OF SOUTHEASTERN AL ASKA 133 11038 F1 73 7 1 2441865 57.8 N-137.3 w 2 20 33. 33 21.8 312.1 13 33 34.0 13 28 38.0 11038 F1 73/07/01 137.3 W 6.1 2441865 57.8 N 13-33-34.0 21.8 312.1 13-28-38. 33 FYSWULRGUP 2 FASTE RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN AL ASKA 133 11038 F2 73 7 1 2441865 57.8 N-137.3 N 2 20 33. 33 21.8 312.1 13 33 34.0 13 28 38.0 11038 F2 73/07/01 2441865 57.8 N 137.3 W 6.1 312.1 21.P 13-28-38. 33 13-33-34-0 FYSWULPGUP 2 EASTE RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN AL ASKA 133 11038 F3 73 7 1 2441865 57.8 N-137.3 N 2 20 33. 33 21.8 312.1 13 33 34.0 13 28 38.0 11038 F3 73/07/01 2441865 57.8 N 137.3 W 6.1 21.8 312.1 13-33-34.0 13-28-38. FYSWULRQUP 2 EASTE RN ALASKA TO VANCOUVER ISLA 20 OFF CUAST OF SOUTHEASTERN AL ASKA 133 11038 F4 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33 21.8 312.1 13 35 34.0 13 28 38.0 11038 F4 73/07/01 2441365 57.8 N 137.3 ₩ 6.1 13-33-34.0 13-28-38. 21.R 312.1 FYSWULRQUP 2 FASTE RN ALASKA TO VANCOUVER ISLA 20 OFF CUAST OF SOUTHEASTERN AL 134 11039 RM 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33 50.4 1 4 55.0 0 55 58.7 11039 BM 73/07/02 49.8 49.5 N 028.5 14 5.0 2441866 33 40.8 56.4 01-04-55.0 00-55-58. **IEOPLOYPRV** 32 ATLAN TIC OCEAN 403 NURTH ATLANTIC RIDGE 134 11039 F1 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33 49.8 56.4 1 4 55.0 0 55 58.7 11039 F1 73/07/02 2441866 49.5 M 028.5 4 5.0 33 56.4 49.8 01-04-55.0 00-55-58. TEOPLGYPRY 32 ATLAN TIC OCEAN 403 NORTH ATLANTIC RIDGE

134 11039 F2 73 7 2 2441866 49.5 N =28.5 N 32 403 33. 33 49.8 56.4 1 4 55.0 0 55 58.7 11039 F2 73/07/02

2 YYRTTUMPLC

PN MEDITERRAMENN AREA 382 ADRIATIC SEA

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49.5 N 2441060 028.5 W 5.0 40.A 56.4 01-04-55.0 00-55-58. 33 7 IEOPLGYPRV 32 ATLAN TIC OCEAN 403 NORTH ATLANTIC RIDGE 134 11039 F3 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33 56.4 1 4 55.0 0 55 58.7 11039 F3 49.8 73/07/û2 49.5 N 028.5 W 5.0 2441866 56.4 40.8 33 01-04-55.0 00-55-58. 7 IEOPLQYPRV 32 ATLAN TIC OCEAN 403 NORTH ATLANTIC RIDGE 134 11039 F4 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33 56.4 1 4 55.0 0 55 58.7 11039 F4 73/07/02 49.8 49.5 N 028.5 W 2441866 5.0 49.A 56.4 3 Z 01-04-55.0 00-55-58. 7 IEOPLQYPPV 32 ATLAN TIC OCEAN 403 NORTH ATLANTIC RIDGE 135 11040 PM 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33 54.0 313.2 5 50 12.0 5 46 44.2 11040 BM 73/07/02 2441866 54.0 N 164.1 F 5.4 33 54.0 313.2 05-56-12.0 05-46-44. S DJSUJBLICZ 28 ALMA-ATA TO LAKE BATHAL 326 CENTRAL PUSSIA 135 11040 F1 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33 54.0 313.2 5 56 12.0 5 46 44.2 11040 F1 73/07/02 2441866 54.0 M 164.1 E 5.4 33 54.0 05-56-12.0 313.2 05-46-44. 2 DJROJHLOCZ SH ALMA-ATA TO LAKE BATKAL 326 CENTRAL RUSSIA 135 11040 F2 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33 54.0 313.2 5 56 12.0 5 46 44.2 11040 F2 73/07/02 2441866 54.0 N 164.1 F 5.4 05-46-44. 54.0 313.2 05-56-12.0 2 DUBOUBLACZ 28 ALMA-ATA TO LAKE MATKAL 326 CENTRAL RUSSIA 135 11040 F3 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33 54.0 313.2 5 56 12.0 5 46 44.2 11040 F3 73/07/02 54.0 N 164.1 F 5.4 2441866 313.2 05-46-44. 54.0 05-56-12-0 S DOBOJBLOCZ 28 ALMA-ATA TO LAKE RATKAL 326 CENTRAL RUSSTA 135 11040 F4 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33 54.0 313.2 5 56 12.0 5 46 44.2 11040 F4 73/07/02 54.0 N 164.1 E 5.4 2441866 54.0 313.2 05-56-12.0 05-46-44. 33 2 DJROJELACZ SH VENT-ATA TO LAKE PATRAL 326 CENTRAL RUSSIA 136 11043 RM 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47 40.4 16 10 12.0 15 58 27.2 11043 BM 0.4 16 10 12.0 13 5 5.3 44.1 N 013.3 F 5.3 47 75.0 40.4 16-10-12.0 75.0 73/07/03 2441867

15-58-27.

31 WESTE

136 11043 F1 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47 75.0 40.4 16 10 12.0 15 58 27.2 11043 F1 73/07/03 2441867 44.1 N 013.3 F 5.3

47 75.0 40.4 16-10-12.0 15-58-27.
2 YYRTTURPLC 31 WESTE
RN MEDITERRANEAN APEA 382 ADPIATIC SEA

136 11043 F2 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47 75.0 40.4 16 10 12.0 15 58 27.2 11043 F2 73/07/03

2441867 44.1 N 013.3 E 5.3

47 75.0 40.4 16-10-12.0 15-58-27.
PARTITURPLE 31 WESTE

RN MEDITERRANEAN AREA 382 ADPIATIC SEA

436 11043 F3 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47 75.0 40.4 16 10 12.0 15 58 27.2 11043 F3 73/07/03 2441867 44.1 N 013.3 E 5.3

47 75.0 40.4 16-10-12.0 15-58-27. 2 YYRTTUQPLC 31 WESTE

PN MEDITERRANEAN AREA 382 ADPIATIC SEA

136 11043 F4 /3 7 3 2441867 44.1 N 13.3 E 31 382 47. 47 75.0 40.4 16 10 12.0 15 58 27.2 11043 F4 73/07/03 2441867 44.1 N 013.3 F 5.3 47 75.0 40.4 16-10-12.0 15-58-27.

2 YYRITURPLC 31 WESTE
RN MEDITERRANEAN AREA 382 ADPIATIC SEA

137 11047 8M 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46 120.4 338.5 16 19 46.0 10 4 30.5 11047 8M 73/07/09 2441873 10.7 N 092.6 F 5.7

46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTFLZ 46 ANDAM
AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F1 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46 120.4 338.5 16 19 46.0 16 4 30.5 11047 F1 73/07/09 2441873 10.7 N 092.6 E 5.7

46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTFLZ 46 ANDAM
AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F2 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46 120.4 338.5 16 19 46.0 16 4 30.5 11047 F2 73/07/09 2441873 10.7 N 092.6 E 5.7

46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTFLZ 46 ANDAM
AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F3 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46 120.4 338.5 16 19 46.0 16 4 30.5 11047 F3 73/07/09 2441873 10.7 N 092.6 E 5.7

46 120.4 338.5 16-19-46.0 16-04-30.
5 KMRHSFTFLZ 46 ANDAM
AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F4 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46 120.4 338.5 16 19 46.0 16 4 30.5 11047 F4 73/07/09 2441873 10.7 N 092.6 E 5.7

IS.

120.4 338.5 16-19-46.0 16-04-30. KMOHSETELZ 46 ANDAM AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION 138 11051 RM 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45 76.0 310.3 23 25 31.0 23 13 39.9 11051 BM 73/07/10 2441874 37.5 N° 142.5 E 5.2 23-13-39. 76.0 310.3 23-25-31.0 45 19 JAPAN ZLSFIICQSY 229 OFF EAST COAST OF HONSHU, JA - KURILES - KAMCHATKA PAN 138 11051 F1 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45 76.0 310.3 23 25 31.0 23 13 39.9 11051 F1 73/07/10 37.5 N 142.5 F 5.2 2441874 23-13-39. 23-25-31.0 45 76.0 310.3 ZLSFITCUSY 19 JAPAN 229 OFF EAST COAST OF HONSHU, JA - KURILES - KAMCHATKA PAtt 138 11051 F2 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45 76.0 310.3 23 25 31.0 23 13 39.9 11051 F2 73/07/10 37.5 N 142.5 E 5.2 2441874 76.0 310.3 23-25-31.0 23-13-39. ZESFTTCUSY 19 JAPAN - KURILES - KAMCHATKA 229 OFF FAST COAST OF HUNSHU, JA 138 11051 F3 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45 76.0 310.3 23 25 31.0 23 13 39.9 11051 F3 73/07/10 5.2 37.5 N 142.5 E 2441874 76.0 310.3 23-25-31.0 23-13-39. 9 ZESFITCGSY 19 JAPAN - KURTLES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA PAN 138 11051 F4 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45 76.0 310.3 23 25 31.0 23 13 39.9 11051 F4 73/07/10 37.5 N 142.5 E 5.2 2441874 45 310.3 23-25-31.0 23-13-39. 76.0 ZESFITCGSY 19 JAPAN - KURILES - KAMCHATKA 229 OFF EAST COAST OF HUNSHU, JA PAN 139 11080 RM 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63 44.2 303.8 23 23 11.0 25 14 58.3 11080 BM 73/97/11 5.1 52.0 N 176.1 W 44.2 303.H 23-23-11.0 23-14-58. 63 3 HMECSKKURG 1 ALASK A - ALEUTIAN ARC 7 ANDREAMOR ISLANDS, ALEUTIAN IS. 139 11080 F1 73 7 11 2441875 52.0 N=176.1 W 1 7 63. 63 44.2 303.8 23 23 11.0 25 14 58.3 11080 F1 73/07/11 5.1 2441875 52.0 M 176.1 W 44.2 303.8 23-23-11.0 23-14-58. 63 HMECSKKUPQ 1 ALASK A - ALEUTIAN ARC 7 ANDREAMOR ISLANDS, ALEUTIAN TS. 139 11080 F2 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63 44.2 303.8 23 23 11.0 23 14 58.3 110A0 F2 73/07/11 2441875 52.0 M 176.1 W 5.1 303.8 23-23-11-0 44.2 23-14-58. 63 3 HMLCSKKURG 1 ALASK 7 ANDREAMOF ISLANDS, ALEUTTAN A - ALFHTIAN ARC

139 11080 F3 73 7 11 2441875 52.0 N=176.1 W 1 7 63. 63 44.2 303.8 23 23 11.0 23 14 58.3 11080 F3 73/07/11 5.1 2441875 52.0 N 176.1 14 63 44.2 303.8 23-23-11.0 23-14-58. HMLCSKKURG 1 ALASK A - ALEUTIAN ARC 7 ANDREAMOF ISLANDS, ALEUTIAN IS. 139 11080 F4 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63 44.2 303.8 23 23 11.0 23 14 58.3 11080 F4 73/07/11 176.1 W 5.1 2441875 52.0 N 44.2 303.8 23-23-11.0 23-14-58. 63 HMLCSKKURQ 1 ALASK A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN IS. 140 11052 BM 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47 49.6 307.4 7 51 7.0 7 42 12.6 11052 BM 73/07/12 52.2 N 174.2 F 5.2 47 49.6 07-51-07.0 07-42-12. 307.4 OGGGLUIHRB 1 ALASK A - ALEUTIAN ARC 5 NEAR ISLANDS, ALFUTIAN ISLAN ns 140 11052 F1 73 7 12 2441876 52.2 N 174.2 E 1 5 47 47 49.6 307.4 7 51 7.0 7 42 12.6 11052 F1 73/07/12 52.2 M 174.2 E 5.2 2441876 47 49.6 307.4 07-51-07.0 07-42-12. OGOGLUIHRB 1 ALASK A - ALEUTIAN ARC 5 MEAR ISLANDS, ALEUTIAN ISLAN D.S. 140 11052 F2 73 7 12 2441876 52.2 N 174.2 E 1 5 47 47 49.6 307.4 7 51 7.0 7 42 12.6 11052 F2 73/07/12 52.2 N 174.2 E 5.2 2441876 49.6 07-51-07.0 07-42-12. 47 307.4 OGRGLUIHRB 1 ALASK A - ALEUTIAN ARC 5 NEAR ISLANDS, ALFUTIAN ISLAN DS 5 47. 47 49.6 307.4 7 51 7.0 7 42 12.6 11052 F3 73/07/12 52.2 N 174.2 F 5.2 2441876 47 49.6 307.4 07-51-07.0 07-42-12. OGGGLUIHPB 1 ALASK A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN ns. 5 41. 47 140 11052 F4 73 7 12 2441876 52.2 N 174.2 E 1 49.6 307.4 7 51 7.0 7 42 12.6 11052 F4 73/07/12 52.2 11 2441876 174.2 E 5.2 307.4 49.6 07-51-07.0 07-42-12. OGGGLUTHPB 1 ALASK 6 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN DS 141 11056 RM 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33 97.6 349.5 4 51 21.0 4 37 43.6 11056 BM 73/07/14 086.5 E 2441878 35.2 N 6.0 33 97.6 349.5 04-51-21.0 04-37-43. TÜLZWBJHAM 26 INDIA - TIBET - SZECHWAN - YUNAN 306 TIRET 141 11056 F1 73 7 14 2441878 35.2 N 80.5 E 26 306 33. 33 97.6 349.5 4 51 21.0 4 37 43.6 11056 F1 73/07/14 35.2 N 086.5 F 6.0 2441878

97.6

349.5

04-51-21.0

04-57-43

33

26 INDIA 6 INLZWBJHRM - TIBET - SZECHWAN - YUMAN 306 TIBET 141 11056 F2 73 7 14 2441878 35.2 N 80.5 E 26 306 33. 33 97.6 349.5 4 51 21.0 4 37 43.6 11056 F? 73/07/14 2441878 35.2 N 086.5 E 6.0 04-51-21.0 97.6 349.5 04-37-43. 6 IGEZWBJHRM 26 INDIA - TIBET - SZECHWAN - YUNAN 306 TIBET 141 11056 F3 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33 97.6 349.5 4 51 21.0 4 37 43.6 11056 F3 73/07/14 35.2 N 086.5 F 6.0 2441878 3 7 97.6 04-37-43. 349.5 04-51-21.0 26 INDIA TULZWBJHRM - TIBET - SZECHWAM - YUMAN 306 TIBET 97.6 349.5 4 51 21.0 4 37 43.6 11056 F4 73/07/14 2441878 35.2 N 086.5 E 6.0 349.5 04-51-21.0 97.6 04-37-43. TOLZWBJHBM 59 INDIA - TIBET - SZECHWAN - YUNAN 306 TIBET 142 11059 BM 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43 69.0 312.2 14 6 49.0 13 55 36.2 11059 BM 43.4 N 146.5 F 5.4 2441879 43 69.6 312.2 14-06-49.0 13-55-36. 2 ZUBLICVDPW 19 JAPAN - KURILES - KAMCHAIKA P21 KUPILE ISLANDS 142 11059 F1 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43 69.6 312.2 14 6 49.0 13 55 36.2 11059 F1 2441879 43.4 N 146.5 E 5.4 09.6 312.2 14-06-49.0 13-55-36. 2 ZGBLIOVDPW 19 JAPAN - KURILES - KAMCHATKA 221 KURILE ISLANDS 142 11059 F2 73 / 15 2441879 43.4 N 146.5 E 19 221 43. 43 69.6 312.2 14 6 49.0 13 55 36.2 11059 F2 73/07/15 146.5 E 5.4 2441879 43.4 N 13-55-36. 09.6 14-06-49.0 312.2 2 ZGBLIOVDPW 19 JAPAN - KURILES - KAMCHATKA 221 KURILE ISLANDS 142 11059 F3 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43 69.6 312.2 14 6 49.0 13 55 36.2 11059 F3 73/07/15 146.5 F 5.4 2441879 43.4 N 312.2 14-06-49.0 00.5 13-55-36. S ZUBLIOADEM 19 JAPAN - KURILES - KAMCHATKA 221 KUPILE ISLANDS 142 11059 F4 73 / 15 2441879 43.4 N 146.5 E 19 221 43. 43 69.6 312.2 14 6 49.0 13 55 36.2 11059 F4 73/07/15 43.4 N 146.5 F 5.4 2441879 69.6 312.2 14-06-49.0 13-55-30. 2 ZUBLIGVDPW 19 JAPAN

- KURILES - KAMCHATKA 221 KUPILE ISLANDS

143 11061 RM 73 7 16 2441880 17.3 N-100.7 w 5 58 44. 44

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169.3 18 12 57.0 18 6 46.9 11061 BM
  29.7
 2441880
          17.3 N
                 100.7 W
                            5.6
                   29.7
              44
                            169.3
                                   18-12-57.0
                                                18-06-46.
9 SBHWCLWMGR
                                                  5 MEXIC
O - GUATEMALA AREA
                           SA NEAR COAST OF GUERRERO, MEXI
Ci
143 11061 F1 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F1
                                              73/07/16
                           5.6
 2441880 17.3 N 100.7 W
                                                18-06-46.
                   29.7
                           169.3
                                  18-12-57.0
              4/1
   SHHWCLWMOR
                                                  5 MEXIC
                           58 NEAR COAST OF GUERRERO, MEXI
O - GUATEMALA AREA
Cυ
143 11061 F2 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F2
                                               73/07/16
 2441880 17.3 N
                 100.7 4
                            5.6
              44
                   29.7
                           169.3
                                   18-12-57.0
                                                18-06-46.
  SBHWCLWMOR
                                                  5 MEXIC
O - GUATEMALA AREA
                           58 NEAR COAST OF GUERRERO, MEXI
\mathbf{c}_0
143 11061 F3 73 7 16 2441880 17.3 N=100.7 w 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F3
                                               73/07/16
 2441880 17.3 M 100.7 W
                            5.6
                   29.7
                           169.3
                                  18-12-57.0
              44
                                                18-06-46.
  SBHWCLWMCR
                                                  5 MEXIC
O - GUATEMALA ARFA
                           SA MEAR COAST OF GUERRERO, MEXI
\mathbf{r}_0
143 11061 F4 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
29.7 169.3 18 12 57.0 18 6 46.9 11061 F4 73/07/16
                          5.6
2441880
        17.3 N 100.7 W
                          109.3
             44
                  29.7
                                 18-12-57.0
                                              18-06-46.9
                                                 5 MEXICO
   SBHWCLWMUR
                          58 NEAR COAST OF GUERRERO, MEXIC
 - GUATEMALA AREA
144 11067 RM 73 7 20 2441884 80.0 N .2 E 40 641 33.
       13.2 23 27 48.0 23 19 12.2 11067 RM 73/07/20
47.1
                0 .2 E 5.2
2441884
        80.0 N
                           13.2
                                               23-19-12.2
             33
                   47.1
                                  23-27-48.0
   KOERIVLIPE
                                                40 ARCTIC
 ZONE
                          641 NORTH OF SVALBARD
144 11067 F1 73 7 20 2441884 80.0 N .2 E 40 641 33.
        13.2 23 27 48.0 23 19 12.2 11067 F1 73/07/20
2441884
         80.0 N
                0 .2 E 5.2
                           13.2
                                  23-27-48.0
                                               23-19-12.2
             33
                  47.1
                                                40 ARCTIC
  KGERIVLIPF
                         641 NORTH OF SVALBARD
 ZONE
144 11067 F2 73 7 20 2441884 80.0 N .2 E 40 641 33.
47.1 13.2 23 27 48.0 23 19 12.2 11067 F2
                                           73/07/20
2441884
         80.0 N 0 .2 E 5.2
                  47.1
                           13.2 23-27-48.0
                                               23-19-12.2
             33
   KREPIVLIPE
                                                40 ARCTIC
 ZONE
                          641 NORTH UF SVALBARD
144 11067 F3 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
47.1
        13.2 23 27 48.0 23 19 12.2 11067 F3
                                           73/07/20
2441884
         80.0 N 0 .2 E 5.2
                  47.1
             33
                          13.2 23-27-48.0
                                              23-19-12.2
   KRERIVLIPF
                                                40 ARCTIC
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ZONE

641 NORTH OF SVALBARD

144 11067 F4 73 7 20 2441884 80.0 N .2 E 40 641 33. 33 47.1 13.2 23 27 48.0 23 19 12.2 11067 F4 73/07/20 2441884 80.0 N 0 .2 E 5.2 33 47.1 13.2 23-27-48.0 23-19-12.2 KQERIVLIPE 40 ARCTIC

ZONE 641 NORTH OF SVALBARD

145 12303 RM 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 57 2.0 4 44 29.7 12303 RM 74/01/30 2442078 49.8 N 078.1 E 5.5

0 83.7 357.2 04-57-02.0 04-44-29.7 ZXHLRUJZYM 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D1 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 57 2.0 4 44 29.7 12303 D1 74/01/30 2442078 49.8 N 078.1 E 5.5 0 83.7 357.2 04-57-02.0 04-44-29.7

ZXHLRUJZYM 28 ALMA-A
TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D2 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 57 2.0 4 44 29.7 12303 D2 74/01/30 2442078 49.8 N 078.1 E 5.5

0 83.7 357.2 04-57-02.0 04-44-29.7 ZXHLRUJZYM 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D3 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 57 2.0 4 44 29.7 12303 D3 74/01/30 2442078 49.8 N 078.1 E 5.5

0 83.7 357.2 04-57-02.0 04-44-29.7 ZXHLRUJZYM 28 ALMA-A TA TO LAKE BAIKAL 529 EASTERN KAZAKH SSR

145 12303 04 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 4 57 2.0 4 44 29.7 12303 04 74/01/30 2442078 49.8 N 078.1 E 5.5

0 83.7 357.2 04-57-02.0 04-44-29.7 ZYHLRUJZYM 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSP

146 12474 RM 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0 83.5 356.8 5 53 1.0 5 40 30.0 12474 RM 74/04/16 2442154 50.0 N 078.8 E 4.8

0 83.5 356.8 05-53-01.0 05-40-30.0 UXJLUODVCF 28 ALMA-A TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D1 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0 83.5 356.8 5 53 1.0 5 40 30.0 12474 D1 74/04/16 2442154 50.0 N 078.8 E 4.8

0 93.5 356.8 05-53-01.0 05-40-30.0 0xJL000VCF 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D2 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0 83.5 356.8 5 53 1.0 5 40 30.0 12474 D2 74704716

TA TO LAKE BAIKAL

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50.0 N
                 078.8 E
2442154
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                                05-53-01.0
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                         356.8
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  OXJLOODVCF
                                              28 ALMA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
146 12474 D3 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
83.5 356.8 5 53 1.0 5 40 30.0 12474 03
                                            74/04/16
         50.0 N 078.8 E 4.8
2442154
                 A3.5
                                 05-53-01.0
                                             05-40-30.0
                          356.8
  OXJLOODVCF
                                              A-AMJA 85
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
146 12474 P4 74 4 16 2442154 50.0 N 78.8 E 28 329 0.
83.5 356.8 5 53 1.0 5 40 30.0 12474 D4 74/04/16
2442154 50.0 N 078.8 E 4.8
                  £3.5
                         356.8
                                 05-53-01.0
                                             05-40-30.0
  OXJLOODVCF
                                              28 AI MA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
147 12305 BM 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 RM 74/05/16
       49.7 N 078.2 E 5.3
2442184
                 A3.8
                                             02-50-24.0
              0
                          357.1
                                 03-02-57.0
  LXKI8YVPMJ
                                              28 ALMA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
147 12305 D1 74 5 16 2442184 49.7 N 78.2 E 28 329 0.
83.8 357.1 3 2 57.0 2 50 24.0 12305 D1 74/05/16
2442184 49.7 N 078.2 E 5.3
                         357.1 03-02-57.0
                                             02-50-24.0
                 83.8
  LXKIBYVPMJ
                                              A-AMJA 85
                         329 EASTERN KAZAKH SSR
TA TO LAKE BAIKAL
147 12305 D2 74 '5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D2 74/05/16
       49.7 N 078.2 E 5.3
2442184
                 A3.8
                         357.1
                                 03-02-57.0
                                             02-50-24.0
                                              A-AMJA 85
  LXKIBYVPMJ
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSP
147 12305 D3 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D3 74/05/16
2442184 49.7 N 078.2 E 5.3
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                                             02-50-24.0
  LXKIBYVPMJ .
                                              A-AMJA 85
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
147 12305 D4 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 04 74/05/16
2442184 49.7 N 078.2 E 5.3
                 83.8
                                 03-02-57.0
                         357.1
                                             02-50-24.0
  LXKIBYVPMJ
                                              A-AMJA 85
                         329 EASTERN KAZAKH SSR
TA TO LAKE BATKAL
148 12399 PM 74 5 31 2442199 50.0 N 78.8 E 28 329 0.
87.5 356.8 3 26 57.0 3 14 26.0 12399 RM
                                           74/05/31
2442199 50.0 N 078.8 E 5.9
                                             03-14-26.0
                  A 3.5
                         356.8 03-26-57.0
  GRANUMRIJL
                                              28 ALMA-A
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329 EASTERN KAZAKH SSR

xaa

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148 12399 D1 74 5 31 2442199 50.0 N 78.8 E 28 329 0.
83.5 356.8 3 26 57.0 3 14 26.0 12399 DI
                                             74/05/31
2442199
         50.0 N
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  GRXUUMRTJL
                                               28 ALMA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
148 12399 D2 74 5 31 2442199 50.0 N 78.8 E 28 329 0.
83.5 356.8 3 26 57.0 3 14 26.0 12399 D2
2442199
        50.0 N 078.8 E 5.9
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                                  03-26-57.0
                                               28 ALMA-A
  GRAHUMRTJE
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
148 12399 D3 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
83.5 356.8 3 26 57.0 3 14 26.0 12399 03
                                             74/05/31
        50.0 N 07H.8 E 5.9
2442199
                                  03-26-57.0
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                 83.5
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  GRXUUMRTJL
                                               28 ALMA-A
TA TO LAKE BATKAL
                         329 EASTERN KAZAKH SSR
148 12399 04 74 5 31 2442199 50.0 N 78.8 E 28 329 0.
83.5 356.8 3 26 57.0 3 14 26.0 12399 04
                                             74/05/31
2442199
                078.8 8 5.9
        50.0 N
                  яз.5
                          356.8
                                  03-26-57.0
                                              03-14-26.0
  GPXUUMRTJL
                                               28 ALMA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
149 12309 BM 74 6 25 2442224 49.9 N 78.1 E 28 329 0.
83.6 357.2 3 56 57.0 3 44 25.2 12300 RM
                                            74/06/25
2442224 49.9 N 076.1 E 4.7
                  83.0
                         357.2
                                  03-56-57-0
                                              03-44-25.2
  XYULPOSVHY
                                              28 ALMA-A
TA TO LAKE HATKAL
                         329 EASTERN KAZAKH SSR
149 12309 D1 74 6 25 2442224 49.9 N 78.1 E 28 329 0.
83.6 357.2 3 56 57.0 3 44 25.2 12309 01
                                          74/06/25
2445554 44.9 N
                078.1 F
                          4.7
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                          357.2
                                  03-56-57.0
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              0
  *YOLPOSVBY
                                               28 ALMA-A
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
149 12309 D2 74 6 25 2442224 49.9 N 78.1 E 28 329 0.
83.6 357.2 3 56 57.0 3 44 25.2 12309 02 74/06/25
2442224 49.9 N
                078.1 E 4.7
                          357.2
                                  03-56-57.0
              0
                  83.b
                                              03-44-25.2
  XYULPOSVBY
                                               A-AMJA 85
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
149 12309 D3 74 6 25 2442224 49.9 N 78.1 E 28 329 U.
83.6 357.2 3 56 57.0 3 44 25.2 12309 03 74/06/25
2442224
         49.9 %
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                 A3.0
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                                  03-56-57.0
                                              03-44-25.2
  XYULPOSVBY
                                               28 ALMA-A
TA TO LAKE HATKAL
                         329 EASTERN KAZAKH SSR
149 12309 D4 74 6 25 2442224 49.9 N 78.1 E 28 329 0.
83.6 357.2 3 56 57.0 3 44 25.2 12309 P4 74/06/25
2442224 49.9 M 078.1 E 4.7
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RNTA - NEVADA PEGION

357.2 03-56-57.0 A3.6 03-44-25.2 28 ALMA-A XYOL POSVBY TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 83.7 357.2 2 56 57.0 2 44 24.7 12284 PM 74/07/10 2442239 49.8 N 078.1 E 5.3 A3.7 357.2 02-56-57.0 0 02-44-24.7 UXWYESELGT 28 ALMA-A 329 EASTERN KAZAKH SSR TA TO LAKE BAIKAL 150 12284 D1 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 2 56 57.0 2 44 24.7 12284 01 74/07/10 49.8 N 078.1 E 5.3 83.7 357.2 02-56-57.0 02-44-24.7 UXWYESELGT 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 150 12284 D2 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 2 56 57.0 2 44 24.7 12284 02 2442239 49.8 N 078.1 E 5.3 02-44-24.7 A3.7 357.2 02-56-57.0 OXNYESELGT 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 150 12284 P3 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0 83.7 357.2 2 56 57.0 2 44 24.7 12284 D3 74/07/10 2442239 49.8 N 078.1 E 5.3 83.7 757.2 02-56-57.0 02-44-24.7 OXWYESELGT 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 150 12284 D4 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 83.7 357.2 2 56 57.0 2 44 24.7 12284 04 74/07/10 2442239 5.3 49.8 N 078.1 E 93.7 02-56-57.0 357.2 02-44-24.7 0 OXNYESELGT 28 ALMA-A TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR 151 12286 8M 74 7 10 2442239 37.8 N-116.0 W 3 40 0. ŋ 11.4 222.6 16 0 0.0 15 57 12.2 12286 BM 74/07/10 116.0 % 5.7 442239 37.9 N 11.4 16-00-00.0 15-57-12.2 555.0 HVXLSTSSUJ 3 CALIFOR MIA - MEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO 151 12286 D1 74 7 10 2442239 37.8 N-116.0 W 3 40 U. 11.4 222.6 16 0 0.0 15 57 12.2 12286 01 74/07/10 116.0 W 5.7 2442239 37.8 N 11.4 222.4 '4-00-00.0 15-57-12.2 HVXLSTSSUJ 3 CALTEO RNIA - NEVADA PEGION 40 CALIFORNIA-NEVADA BORDER REGI UN 151 12286 D2 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 11.4 222.6 16 0 0.0 15 57 12.2 12286 P2 74/07/10 2442239 37.8 N 116.0 N 5.7 16-00-00.0 15-57-12.2 0 11.4 555.6 HVXLSTSSUJ 3 CALIFO

40 CALTFORNIA-NEVADA BORDER REGI

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UV.
151 12286 D3 74 7 10 2442239 37.8 N=116.0 w 3 40 0.
11.4 222.6 16 0 0.0 15 57 12.2 12286 D3
                                            74/07/10
2442239
       37.8 N 110.0 N
                          5.7
                  11.4
                          255.6
                                  16-00-00.0
                                              15-57-12.2
  HVXLSTSSUJ
                                                3 CALTED
                          40 CALIFORNIA-NEVADA BORDER REGI
RNIA - NEVADA REGION
MO
151 12286 D4 74 7 10 2442239 37.8 N-116.0 w 3 40 0.
11.4 222.6 16 0 0.0 15 57 12.2 12286 D4
                                            74/07/10
2442239 37.8 N 116.0 W 5.7
                  11.4
                          222.6
                                16-00-00.0
                                              15-57-12.2
  HVXLSTSSUJ
                                                3 CALTEO
RNIA - NEVADA REGION
                         40 CALTFORMIA-NEVADA BORDER REGI
ΩN
152 12292 RM 74 7 22 2442251 70.7 N 53.5 E 40 648 0.
        7.5 1 32 21.0 1 21 57.5 12292 RM
01.9
                                            74/07/22
         70.7 N
                053.5 E
2442251
                           4.4
                  61.9
                           7.5
                                  01-32-21.0
                                              01-21-57.5
              U
  IJJPWLSXMV
                                               40 ARCTIC
ZONE
                         648 NOVAYA ZEMLYA
152 12292 D1 74 7 22 2442251 70.7 N 53.5 E 40 648 0.
        7.5 1 32 21.0 1 21 57.5 12292 D1
61.9
                                            74/07/22
2442251
        70.7 N
                  053.5 E 4.4
                   61.2
                           7.5
                                  01-32-21.0
                                              01-21-57.5
                                               40 ARCTIC
  IJJPWESXMV
ZONE
                         648 NOVAYA ZEMLYA
152 12292 D2 74  7 22 2442251 70.7 N 53.5 E 40 648 0.
61.9
        7.5 1 32 21.0 1 21 57.5 12292 02
                                            74/07/22
         70.7 N
                053.5 E
                           4.4
                  61.9
                           7.5
                                  01-32-21.0
                                              01-21-57.5
              0
  IJJPALSXMV
                                               40 ARCTIC
                         648 NOVAYA ZEMLYA
ZONE
152 12292 D3 74 7 22 2442251 70.7 N 53.5 E 40 648 0.
       7.5 1 32 21.0 1 21 57.5 12292 03
61.9
                                            74/07/22
2442251
       70.7 N
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                           7.5
                                  01-32-21.0
                                              01-21-57.5
                                               40 ARCTIC
  IJJPHLSX*V
ZONE
                         648 NOVAYA ZEMLYA
152 12292 D4 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
        7.5 1 32 21.0 1 21 57.5 12292 04
01.9
2442251
         70.7 N
                 053.5 E
                           4.4
              0
                  61.9
                            7.5
                                  01-32-21.0
                                              01-21-57.5
  IJJPWLSXMV
                                               40 ARCTIC
ZONE
                         548 MOVAYA ZEMLYA
153 12403 PM 74 8 14 2442274 37.0 N-110.7 w 3 40 0.
12.4 222.5 14 0 0.0 13 56 58.9 12403 BM
                                            74/08/14
2442274 37.0 N 116.7 N 4.6
                          222.5 14-00-00.0
                  12.4
                                              13-56-58.9
  MIMMALKXDE
                                                3 CALIFO
RNIA - NEVADA REGION
                         40 CALIFORNIA-NEVADA BORDER REGI
O(4)
153 12403 D1 74 8 14 2442274 37.0 H-116.7 W 3 40 0.
12.4 222.5 14 0 0.0 13 56 58.9 12403 01
                                            74/09/14
2442274 37.0 N 110.7 N 4.6
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222.5
                                 14-00-00.0
                  12.4
                                               13-56-58.9
  MIMWVLKXPR
                                                  3 CALIFO
RNIA - NEVADA REGION
                           40 CALIFORNIA-NEVADA BORDER PEGI
153 12403 02 74 8 14 2442274 37.0 N-116.7 W 3 40 0.
12.4 222.5 14 0 0.0 13 56 58.9 12403 D2
                                              74/08/14
2442274
       37.0 N
                116.7 N 4.6
                  12.4
                                   14-00-00-0
                                                13-56-58.9
                           222.5
  MIMWVLKXPR
                                                  3 CALIFO
RNIA - NEVADA REGION
                           40 CALIFORNIA-NEVADA BORDER REGI
ΩN
153 12403 D3 74 8 14 2442274 37.0 N-116.7 w 3 40 0.
12.4 222.5 14 0 0.0 13 56 58.9 12403 03
                                              74/08/14
         37.0 N 116.7 W
2442274
                           4.6
                           222.5
                                               13-56-58.9
                  12.4
                                   14-00-00.0
  MIMWVLKXPR
                                                  3 CALIFO
RNIA - NEVADA REGION
                           40 CALIFORNIA-NEVADA BORDER REGI
NO
153 12403 D4 74 8 14 2442274 37.0 N-116.7 N 3 40 0.
12.4 222.5 14 0 0.0 13 56 58.9 12403 D4
                                              74/08/14
                           4.6
2442274
         37.0 N
                 110.7 W
                   12.4
                           222.5
                                   14-00-00-0
                                                13-56-58.9
  MIMWVLKXPR
                                                  3 CALIFO
RNIA - MEVADA REGION
                           40 CALIFORNIA-NEVADA BORDER REGI
154 12405 BM 74 8 29 2442289 73.4 N 55.1 E 40 648 0.
         6.1 9 59 55.0 9 49 47.8 12405 RM
59.5
                                              74/08/29
                055.1 E
2442289
         73.4 N
                            6.4
                                   09-59-55.0
                                               09-49-47.8
                   59.5
                            6.1
  EXMORJEBSZ
                                                40 ARCTIC
ZONE
                          648 NOVAYA ZEMLYA
154 12405 D1 74 8 29 2442289 73.4 N 55.1 E 40 648 0.
                                                        0
         6.1 9 59 55.0 9 49 47.8 12405 01
59.5
                                              74/08/29
2442289
         73.4 N
                055.1 E 6.4
              0
                   59.5
                                  09-59-55.0
                                               09-49-47.8
                             6.1
  EXMORJEBS7
                                                40 APCTIC
ZONE
                          548 NOVAYA ZEMLYA
154 12405 D2 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
59.5
         6.1 9 59 55.0 9 49 47.8 12405 D2
                                              74/08/29
5445596
         73.4 N
                055.1 E
                            6.4
                  59.5
                             6.1
                                   09-59-55.0
                                               09-49-47.A
              0
  EXNORJLBSZ
                                                40 ARCTIC
 ZONE
                          648 NOVAYA ZEMLYA
154 12405 D3 74 8 29 2442289 73.4 N 55.1 E 40 648 0.
         6.1 9 59 55.0 9 49 47.8 12405 03
59.5
                                              74/08/29
2442289
         73.4 1
                 055.1 E 6.4
                                   09-50-55.0
                   59.5
              0
                             6.1
                                               09-49-47.8
  EXWORJL#S7
                                                40 ARCTIC
 ZONE
                          648 NOVAYA ZEMLYA
154 12465 D4 74 8 29 2442289 73.4 N 55.1 E 40 648 0.
59.5
         6.1 9 59 55.0 9 49 47.8 12405 D4
                                              74/08/29
2442289
         73.4 N
                055.1 E 6.4
                   59.5
                                  19-59-55.0
                                               09-49-47-8
                             5.1
  EXNORJL PS7
                                                40 ARCTIC
ZONE
                         648 NOVAYA ZEMLYA
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155 12427 BM 74 9 26 2442317 37.1 N-116.0 a 3 40 0.
12.0 220.6 15 5 0.0 15 2 4.7 12427 RM
                                            74/09/26
2442317 37.1 N
                116.0 W
                          5.6
                  12.0
                          550.6
                                 15-05-00.0
                                              15-02-04.7
   XLBTOHIPYF
                                                3 CALIFO
                         40 CALTFORNIA-NEVADA BORDER REGI
RNIA - NEVADA REGION
155 12427 C1 74 9 26 2442317 37.1 N=116.0 N 3 40 0.
12.0 220.6 15 5 0.0 15 2 4.7 12427 D1
                                             74/09/26
2442317 37.1 N 116.0 N
                          5.6
                          220.6 15-05-00.0
                                              15-02-04.7
                  12.0
  XLBIOHIPYF
                                               3 CALIFO
RNIA - NEVADA PEGION -
                         40 CALTFORMIA-MEVADA BORDER REGI
0.04
155 12427 D2 74 9 26 2442317 37.1 N-116.0 x 3 40 0.
12.0 220.6 15 5 0.0 15 2 4.7 12427 02
                                            74/09/26
2442317 37.1 N
                          5.6
                110.0 N
                                 15-05-00.0
                                              15-02-04.7
                          9.055
              ()
                  12.0
  XLBIOHIPYF
                                                3 CALIFO
PNIA - NEVADA PEGION
                         40 CALTFORNIA-NEVADA BORDEP REGI
155 12427 D3 74 9 26 2442317 37.1 N-116.0 N 3
                                             40 0.
12.0 220.6 15 5 0.0 15 2 4.7 12427 03
                                             74/09/20
                115.0 N 5.0
2442317 37.1 N
                  12.0
                         220.6 15-05-00.0
                                              15-02-04.7
  ALBIOHIPYE
                                               3 CALTEO
RNIA - MEVADA REGION
                         40 CALIFORNIA-MEVADA BORDER REGI
155 12427 D4 74 9 26 2442317 37.1 M=116.0 W 3 40 0.
12.0 220.6 15 5 0.0 15 2 4.7 12427 04
                                            74/09/26
                116.0 A
2442317
        37.1 %
                           5.6
                                 15-05-00.0
                  12.0
                          220.6
                                              15-02-04.7
  XLBIUHIPYF
                                                3 CALTEO
PNIA - NEVADA PEGION
                          40 CALIFORNIA-NEVADA BORDER REGI
156 12429 BM 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
83.5 356.6 6 32 57.0 6 20 26.0 12429 RM 74/10/16
2442337 50.0 N 079.0 E 5.5
                  A3.5
                         356.6 06-32-57.0
                                              06-20-26.0
  CZXMSPTLUG
                                              A-AMJA 85
TA TO LAKE BAIKAL
                         329 EASTERN KAZAKH SSR
156 12429 D1 74 10 16 2442337 50.0 M 79.0 E 28 329 0. 0
83.5 356.6 6 32 57.0 6 20 26.0 12429 01 74/10/16
2442337 50.0 N U79.0 E 5.5
                 A3.5
                          356.6
                                 06-32-57.0
                                              06-20-26.0
  CZXMSPTLUG
                                              28 ALMA-A
TA TO LAKE BATKAL
                         329 EASTERN KAZAKH SSR
156 12429 D2 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
83.5 356.6 6 32 57.0 6 20 26.0 12429 02 74/10/16
2442337 50.0 N 079.0 E 5.5
                          356.6
                  83.S
                               06-32-57.0
              O.
                                              06-20-26.0
  CZXMSPILUG
                                              A-AMJA 85
                         329 EASTERN KAZAKH SSR
TA TO LAKE BAIKAL
156 12429 03 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
33.5 356.6 6 32 57.0 6 20 26.0 12429 D3
2442337 50.0 h 079.0 E 5.5
                  A3.5
              ()
                          356.6
                                06-32-57.0 06-20-26.0
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CZXMSPTLUG
                                               SH ALMA-A
                         329 EASTEPN KAZAKH SSR
TA TO LAKE BAIKAL
156 12429 04 74 10 16 2442337 50.0 N 79.0 E 28 329 0.
83.5 356.6 6 32 57.0 6 20 26.0 12429 04 74/10/16
                079.0 E 5.5
2442337 50.0 N
                  93.5
                                  00-32-57.0
                                              06-20-26.0
                          356.6
              ()
                                               28 ALMA-A
  CZXMSPTLUG
TA TO LAKE BAIKAL
                         329 EASTEPN KAZAKH SSR
157 1047 RM 65 10 29 2439063 51.4 N 179.2 E 1 6 0.
47.1 304.6 21 8 35.7 20 59 59.7 1047 RM
                                             65/10/29
2439063 51.4 N 179.2 E 6.1
                                 21-08-35.7
                                              20-59-59.7
                  47.1
                          304.6
  LXGSZSEGKR
                                                1 ALASKA
- ALEUTIAN ARC
                           6 RAT ISLANDS, ALEUTIAN ISLANDS
157 1047 F1 65 10 29 2439063 51.4 N 179.2 E 1
47.1 304.6 21 8 35.7 20 59 59.7 1047 F1
                                            65/10/29
                179.2 E 6.1
2439063 51.4 N
                                              20-59-59.7
                  47.1
                                  21-08-35.7
                          304.6
  LXGSZSFGKR
                                                1 ALASKA
                        - 6 RAT ISLANDS, ALEUTIAN ISLANDS
 - ALEUTIAN ARC
157 1047 F2 65 10 29 2439003 51.4 N 179.2 L 1 6 0.
47.1 304.6 21 8 35.7 20 59 59.7 1047 F2
                                            65/10/29
                179.2 E 6.1
2439063 51.4 N
                  47.1
                                              20-59-59.7
                          304-6
                                  21-08-35-7
  LXGSZSFGKR
                                                1 ALASKA
- ALEUTIAN ARC
                           6 RAT ISLANDS, ALEUTIAN ISLANDS
157 1047 F3 65 10 29 2439063 F1.4 N 179.2 E 1
47.1 304.6 21 8 35.7 20 59 59.7 1047 F3 65/10/29
                179.2 E 6.1
2439063 51.4 N
                                              20-59-59.7
                  47.1
                          304.6
                                21-08-35.7
  LXGSZSFGMP
                                                1 ALASKA
 - ALEUTIAN ARC
                           6 RAT ISLANDS, ALEUTIAN ISLANDS
157 1047 F4 65 10 29 2439063 51.4 N 179.2 E 1 6 U.
47.1 304.6 21 8 35.7 20 59 59.7 1047 F4
                                           65/10/29
        51.4 N
                179.2 E 6.1
2434003
                                              20-59-59.7
                  47.1
                          304.6
                                 21-08-35.7
                                                1 ALASKA
  LXGSZSFGKR
 - ALEUTTAN ARC
                           6 RAT ISLANDS, ALEUTIAN ISLANDS
158 1069 BM 65 12 1 2439096 24.1 N 5.2 E 37 551 0.
86.3 58.4 10 42 43.7 10 29 58.5 1069 RM
                                            65/12/01
                0 5.2 E 5.1
2439096
        24.1 N
                   86.3
                                10-42-43.7
                                             10-29-58.5
                           58.4
                                               37 AFRICA
   FOILYFXHFF
                         551 SOUTHERN ALGERIA
158 1069 F1 65 12 1 2439096 24.1 N 5.2 E 37 551 0.
        58.4 10 42 43.7 10 29 58.5 1069 F1
86.3
2439096
        24.1 N 0 5.2 E
                           5.1
                                             10-29-58.5
                   20.3
                           59.4
                                10-42-43.7
                                               37 AFRICA
   FOILYFXHFF
                         551 SOUTHERN ALGERIA
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158 1069 F2 65 12 1 2439096 24.1 N 5.2 E 37 551 0.

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x a a
               58.4 10 42 43.7 10 29 58.5 1069 F2 65/12/01
        86.3
       2439096
               24.1 N 0 5.2 E 5.1
                                                     10-29-58.5
                         80.3
                                  58.4 10-42-43.7
          FOILYEXHEE
                                                      37 AFRICA
                                 551 SOUTHERN ALGERIA
       158 1069 F3 65 12 1 2439096 24.1 N 5.2 E 37 551 0.
               58.4 10 42 43.7 10 29 58.5 1069 F3
               24.1 N
                        0 5.2 E 5.1
                                       10-42-43.7
                                                     10-29-58.5
                          86.3
                                  58.4
          FOILYFXHFF
                                                      37 AFRICA
                                 551 SOUTHERN ALGERIA
       158 1069 F4 65 12 1 2439096 24.1 N | 5.2 E 37 551 0.
        86.3
               58.4 10 42 43.7 10 29 58.5 1069 F4
                                                   65/12/01
                       0 5.2 E 5.1
       2439096
               24.1 N
                          A0.3
                                  58.4
                                       10-42-43.7
                                                     10-29-58.5
          FOILYEXHEE
                                                      37 AFRICA
                                 551 SOUTHERN ALGERIA
       159 3853 RM 67 9 27 2439761 37.1 N-116.0 N 3 40 33. 33
        12.0 220.6 17 2 39.9 16 59 44.6 3853 RM
                                                   67/09/27
       2439761
                37.1 N
                        11c.0 A 4.6
                                         17-02-39.9
                                                     16-59-44.6
                         12.0
                                 250.6
          LHYZ'4IXVJR
                                                       3 CALIFO
       RNIA - NEVADA REGION
                                 40 CALIFORNIA-NEVADA BORDER REGI
       159 3853 F1 67 9 27 2439761 37.1 N-110.0 N 3 40 33. 33
        12.0 220.6 17 2 39.9 16 59 44.6 3853 F1 67/09/27
                        110.0 %
               37.1 N
                                  4.6
                                                     16-59-44.6
                                 220.6 17-02-39.9
                    33
                         12.0
          LHYZMIXVJR
                                                       3 CALIFO
       RNIA - NEVADA REGION
                                 40 CALIFORNIA-NEVADA BORDER REGI
       159 3853 F2 67 9 27 2439761 37.1 N=116.0 W 3 40 33. 33
        12.0 220.6 17 2 39.9 16 59 44.6 3853 F2
                                                   67/09/27
       2439761 37.1 N 110.0 N 4.6
                                 220.6 17-02-39.9
                                                     16-59-44-6
                    33
                         12.0
          LHYZMTXVJP
                                                       3 CALTEO
       RNIA - MEJADA PEGION
                                 40 CALIFORNIA-NEVADA BORDER REGI
       ON.
       159 3853 F3 67 9 27 2439761 37.1 N=116.0 W 3 40 33. 33
       12.0 220.6 17 2 39.9 16 59 44.6 3853 F3
                                                   67/09/27
                                 4.0
               37.1 N
                        110.0 4
                                 220.6 17-02-39.9
                                                     16-59-44.6
                    33
                         12.0
          LHYZMIXVJR
                                                       3 CALIFO
       PNIA - NEVADA PEGION
                                 40 CALIFORMIA-NEVADA BORDER REGI
       159 3853 F4 67 9 27 2439761 37.1 N-110.0 N 3 40 33. 33
        12.0 220.6 17 2 39.9 16 59 44.6 3853 F4
                                                    67/09/27
                                 4.6
       2439761 37.1 N
                       110.0 4
                                 220.6 17-02-39.9
                                                     16-59-44-6
                    33
                         12.0
          LHYZMIXVJR
                                                       3 CALIFO
       RNIA - MEVADA PEGION
                                 40 CALIFORNIA-NEVADA BORDER REGI
       160 2634 8% 67 12 10 2439835 36.7 1-107.2 w 34 496 0.
        10.0 184.5 19 32 30.5 19 30 2.3 2634 BM
                                                   67/12/10
                        107.2 N 5.1
                30.7 N
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184.5

10.0

ILFXWDHJHI

19-32-30.5

19-30-02.3

34 EASTER

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N NORTH AMERICA
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496 NEW MEXICO

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160 2634 F1 67 12 10 2439835 36.7 N-107.2 w 34 496 0.
10.0 184.5 19 32 30.5 19 30 2.3 2634 F1 67/12/10
2439835 36.7 N 107.2 W 5.1
                 10.0 184.5 19-32-30.5
                                           19-30-02.3
  ILFXWDBJBT
                                             34 EASTER
N NORTH AMERICA
                        496 NEW MEXICO
160 2634 F2 67 12 10 2439835 36.7 N=107.2 w 34 496 0.
10.0 184.5 19 32 30.5 19 30 2.3 2634 F2
2439835 36.7 N 107.2 N 5.1
             0 10.0
                        184.5
                               19-32-30.5
                                           19-30-02.3
  [LFXwD8J8]
                                             34 EASTER
N NORTH AMERICA
                        496 NEW MEXICO
160 2634 F3 67 12 10 2439835 36.7 N-107.2 w 34 496 0.
10.0 184.5 19 32 30.5 19 30 2.3 2634 F3 67/12/10
2439835 36.7 N 107.2 W 5.1
                        184.5 19-32-30.5
                                           19-30-02.3
                 10.0
  ILFXWDBJBI
                                            34 EASTER
N NORTH AMERICA
                        496 NEW MEXICO
160 2634 F4 67 12 10 2439835 36.7 N=107.2 w 34 496 0.
10.0 184.5 19 32 30.5 19 30 2.3 2634 F4
                                         67/12/10
2439835 36.7 N 107.2 W 5.1
                 10.0
                        184.5
                               19-32-30.5
                                            19-30-02-3
  ILFXWDBJbI
                                             34 EASTER
N MORTH AMERICA
                        496 NEW MEXICO
161 5853 8M 68 4 26 2439973 37.3 N-116.5 w 3 40 0.
12.1 222.7 15 2 56.1 14 59 59.9 5853 RM
                                          68/04/26
2439973 37.3 N 116.5 w 6.3
                 12.1
                         222.7 15-02-56.1
                                            14-59-59.9
  LXEYSVBUUZ
                                              3 CALTEO
RNTA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
0.0
161 5853 F1 68 4 26 2439973 37.3 N-116.5 N 3 40 0.
12.1 222.7 15 2 56.1 14 59 59.9 5853 F1 68/04/26
2439973 37.3 N 116.5 W 6.3
                 12.1
                        222.7
                                15-02-56.1
                                            14-59-59.9
  LXEYSVBUUZ
                                              3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER PEGI
ON
161 5853 F2 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
12.1 222.7 15 2 56.1 14 59 59.9 5853 F2 68/04/26
2439973 37.3 N 116.5 W 6.3
             0
                               15-02-56.1
                                            14-59-59.9
                 12.1
                         7.555
  LXEYSVBUUZ
                                              3 CALIFO
RNIA - NEVADA REGION
                   40 CALIFORNIA-NEVADA BORDER REGI
00
161 5853 F3 68 4 26 2439973 37.3 N-110.5 W 3 40 0. 0
12.1 222.7 15 2 56.1 14 59 59.9 5853 F3
                                           68/04/26
2439973 37.3 N 116.5 N 6.3
                                            14-59-59.9
             0
               12.1
                        222.7 15-02-56.1
  LXEYSVBUUZ
                                              3 CALTEN
RNIA - MEVADA REGION
                        40 CALTEDRNIA-NEVADA BORDER REGI
161 5853 F4 68 4 26 2439973 37.3 N=116.5 W 3 40 0. 0
12.1 222.7 15 2 56.1 14 59 59.9 5853 F4
                                          68/04/26
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2439973
         37.3 N
                 116.5 W
                           0.3
                                  15-02-56.1
                                            14-59-59.9
                  12.1
                          222.7
                                                3 CALTEO
  LXEYSV8UUZ
RNTA - NEVADA REGION
                          40 CALTFORNIA-NEVADA BORDER REGI
162 6661 BM 68 9 6 2440106 37.1 N-116.0 W 3 40 0.
12.0 220.6 14 2 55.2 13 59 59.9 6661 BM
                                             68/09/06
2440106 37.1 N 116.0 W 5.6
                                14-02-55.2
                                              13-59-59.9
                          9.055
                  12.0
  URMIXUMVLH
                                                3 CALIFO
RNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDEP REGI
102 0601 F1 08 9 6 2440106 37.1 N-110.0 W 3 40 0.
12.0 220.6 14 2 55.2 13 59 59.9 6661 F1
                                            68/09/06
                          5.0
2440106 37.1 N
                110.0 N
                                  14-02-55.2
                                              13-59-59.9
                          9.055
              ()
                  12.0
  UPMIXEMVEH
                                                3 CALTEO
                          40 CALIFORNIA-NEVADA BORDER REGI
RNTA - HEVADA REGION
0 M
107 0601 F2 08 9 6 2440106 37.1 N-116.0 N 3 40 0.
12.0 220.6 14 2 55.2 13 59 59.9 6661 F2
                                             68/09/06
                          5.6
2440106 37.1 N
                116.0 a
                                14-02-55.2
                                              13-59-59.9
                  12.0
                          220.6
  UPMIXUNVLH
                                                3 CALTEO
                          40 CALIFORMIA-NEVADA BORDER PEGI
PNIA - NEVADA PEGION
DΝ
102 5661 F3 68 9 6 2446106 37.1 N-116.0 W 3 40 0.
12.0 220.6 14 2 55.2 13 59 59.9 6661 F3 68/09/06
2440106 37.1 N
                110.0 W
                           5.0
                                14-02-55.2
                                              13-59-59.9
                   12.0
                          220.6
  URMIXUAVEH
                                                3 CALIFO
PNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER PEGI
NO
102 0601 F4 08 9 6 2440106 37.1 N-110.0 N 3 40 0.
12.0 220.6 14 2 55.2 13 59 59.9 6601 F4
                                             68/09/06
                          5.0
2440106 37.1 N 116.0 M
                                14-02-55.2
                                              13-59-59.9
                  12.0
                          9.055
  6PMIXUAVEH
                                                3 CALTED
PNIA - NEVADA PEGION
                          AU CALIFORMIA-MEVADA BORDEP PEGI
163 8348 88 68 12 19 2440210 37.2 N=116.5 W 3 40 U.
12.2 222.4 16 32 57.1 16 29 59.6 8348 BM
                                             68/12/19
2440210 37.2 N 110.5 N
                         6.3
                          222.4 10-32-57.1
                                              16-29-59.6
              ()
                  12.2
  EYJKECXUML
                                                3 CALTFO
PNIA - NEVADA REGION
                          40 CALTFORMIA-NEVADA BORDER PEGI
163 8348 F1 68 12 19 2440210 37.2 N-116.5 W 3 40 0.
17.2 222.4 16 32 57.1 16 24 59.6 8348 F1
                                            68/12/19
                110.5 N
2440210 37.2 0
                           6.3
                                  16-32-57.1
                                              16-29-59.6
              ()
                  12.2
                          555.4
  EATKECXIIME
                                                3 CALTER
ANIA - MENADA PERION
                          40 CALIFORNIA-NEVADA BORDER REGI
163 8348 F2 68 12 19 2440210 37.2 N-116.5 W 3 40 0.
12.2 222.4 to 32 57.1 16 29 59.6 8348 F2
                                             68/12/19
2440210 37.2 N 110.5 W
                          6.3
                          222.4 16-32-57.1
                                              16-29-59.6
                  12.0
  EYJKECXUML
                                                3 CALTED
                          40 CALTEGRATA-NEVADA BORDER PEGI
UNITA - WEVARA REGION
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2440302 37.1 N 116.1 W 4.9

x a a

ON 163 8348 F3 68 12 19 2440210 37.2 N-116.5 w 3 40 0. 12.2 222.4 16 32 57.1 16 29 59.6 8348 F3 68/12/19 2440210 37.2 N 110.5 W 6.3 12.2 222.4 16-32-57.1 16-29-59.6 0 EYJKFCXUML 3 CALIFO RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI 163 8348 F4 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 12.2 222.4 to 32 57.1 16 29 59.6 8348 F4 68/12/19 2440210 37.2 N 116.5 N 6.3 12.2 222.4 16-32-57.1 16-29-59.6 EYJKFCXUML 3 CALTEO 40 CALIFORNIA-NEVADA BORDER REGI PNIA - NEVADA PEGION 164 7477 BM 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33 91.2 346.8 7 43 10.9 7 30 2.9 7477 BM 68/12/27 2440218 41.0 N 091.4 E 4.6 91.2 33 346.P 07-43-10.9 07-30-02.9 CHWTXGHLVF 27 SOUTHE RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN 164 7477 F1 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33 91.2 346.8 7 43 10.9 7 30 2.9 7477 F1 2440218 41.0 N 091.4 E 4.6 91.2 346.8 07-43-10.9 07-30-02.9 CWNTXGHLVF 27 SOUTHE RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN 164 7477 F2 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33 91.2 346.8 7 43 10.9 7 30 2.0 7477 F2 68/12/27 41.0 N 091.4 E 4.6 91.2 07-30-02.9 346.8 07-43-10.9 CWWTXGHLVF 27 SOUTHE RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN 164 7477 F3 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33 91.2 346.8 7 43 10.9 7 30 2.9 7477 F3 68/12/27 2440218 41.0 N 091.4 E 4.6 91.2 346.8 07-43-10.9 U7-30-02.9 CWWIXGHLVE 27 SOUTHE PN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN 164 7477 F4 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33 91.2 346.8 7 43 10.9 7 30 2.9 7477 F4 68/12/27 41.0 N 091.4 E 4.6 2440218 91.2 346.8 07-43-10.9 07-30-02.9 CWMTXGHLVF 27 SOUTHE RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PRUV., CHIN 165 1150 BM 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 12.1 220.9 14 32 55.7 14 29 59.7 1150 BM 69/03/21 2440302 37.1 N 116.1 # 4.9 220.9 14-32-55.7 12.1 14-29-59.7 YICLXCHTYV 3 CALIFO RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI 165 1150 F1 69 3 21 2440302 37.1 N-116.1 N 3 40 0. 12.1 220.9 14 32 55.7 14 29 59.7 1150 F1 69/03/21

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220.9 14-32-55.7 14-29-59.7
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                  12.1
  YTCLXCRTYV
                                                3 CALIFO
RNIA - NEVADA PEGION
                         40 CALIFORNIA-NEVADA BORDER REGI
165 1150 F2 69 3 21 2440302 37.1 N-116.1 W 3 40 0.
12.1 220.9 14 32 55.7 14 29 59.7 1150 F2
2440302 37.1 11
                116.1 N 4.9
                          550.9
                                14-32-55.7
                                              14-29-59.7
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   YTCLXCRTYV
                                                3 CALIFO
RNIA - NEVADA REGION
                          40 CALTFORNIA-NEVADA BORDER REGI
ÛΝ
165 1150 F3 69 5 21 2440302 37.1 N-116.1 N 3 40 0.
12.1 220.9 14 32 55.7 14 29 59.7 1150 F3
                                            69/03/21
        37.1 N 116.1 W 4.9
2440302
                          6.035
                                 14-32-55.7
                                              14-29-59.7
                  12.1
  YTCLXCRTYV
                                                3 CALTEO
RNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER REGI
ON
165 1150 F4 69 3 21 2440302 37.1 N-116.1 N 3 40 0.
12.1 220.9 14 32 55.7 14 29 59.7 1150 F4
                                           69/03/21
2440302 37.1 N 116.1 N 4.9
                         220.9 14-32-55.7
                                              14-29-59.7
                  12.1
  YTCLXCRTYV
                                                3 CALIFO
PNTA - NEVADA REGION
                     40 CALTFORMIA-NEVADA BORDER REGI
166 1157 BM 69 4 30 2440342 37.1 N-116.0 W 3 40 0.
12.0 220.6 17 2 55.1 16 59 59.8 1157 RM
                                            69/04/30
                110.U A
                          5.3
5440345
         37.1 N
                  12.0
                          220.6
                                 17-02-55.1
                                              16-59-59.8
  LBDVxMBIFS
                                                3 CALIFO
RNIA - MEVAUA REGION
                         40 CALIFORNIA-NEVADA BORDER REGI
Oiv
166 1157 F1 69 4 30 2440342 37.1 N-116.0 w 3 40 U.
12.0 220.6 17 2 55.1 16 59 59.8 1157 F1
                                            69/04/30
2440342
       37.1 %
                110.0 N 5.3
                  12.0
                          220.6 17-02-55.1
                                              16-59-59.8
  LBDVXMHIFS
                                                3 CALIFO
PNTA - NEVADA REGION
                         40 CALIFORMIA-NEVADA BORDER REGI
100 1157 F2 69 4 30 2440342 37.1 N=110.0 N 3 40 0. 0
12.0 220.6 17 2 55.1 16 59 59.8 1157 F2
                                            69/04/30
2440342 37.1 % 115.0 m 5.3
                                17-02-55.1
                                              16-59-59.8
                  12.0
                          250.6
  LHUVXMHIFS
                                               3 CALIFO
RNIA - NEVADA REGION
                         40 CALTFORNIA-MEVADA BORDER REGI
ON
166 1157 F3 69 4 30 2440312 37.1 N-116.0 N 3 40 0.
12.0 220.6 1/ 2 55.1 16 59 59.8 1157 F3
                                            69/04/30
                         5.3
2440342
        37.1 4
                110.0 A
                  12.0
                          550.6
                                17-02-55.1
                                              16-59-59.8
  LBUVXMBIFS
                                                3 CALIFO
PHITA - HEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER REGI
166 1157 F4 69 4 30 2440342 37.1 N-116.0 W 3 40 U.
12.0 200.6 17 2 55.1 16 59 59.8 1157 F4
                                           69/04/30
2440342 37.1 N 110.0 N 5.3
                                              16-59-59.8
                  12.0
                         220.6 17-02-55.1
  LBDVxMhTFS
                                               3 CALTED
PRITA - NEVADA REGION
                         40 CALIFORMIA-NEVADA BORDER PEGI
0.67
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167 7656 RM 69 5 7 2440349 37.3 N-116.5 W 3 40 0.
       222.7 13 47 56.0 13 44 59.8 7656 BM
                                            69/05/07
2440349
         37.3 N 110.5 N
                          5.8
              0
                   12.1
                          222.7
                                  13-47-56.0
                                              13-44-59.8
  PHGJLHXIID
                                                3 CALIFO
RNIA - NEVADA PEGION
                          40 CALIFORNIA-NEVADA BORDER REGI
167 7656 F1 69 5 7 2440349 37.3 N-116.5 W 3 40 0.
12.1 222.7 13 47 56.0 13 44 59.8 7656 F1
                                             69/05/07
                110.5 W 5.8
2440349 37.3 N
                  12.1
                                13-47-56.0
                                              13-44-59.8
                          222.7
  PHGJLHXIID
                                                3 CALIFO
RNIA - NEVADA REGION
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ΩN
167 7656 F2 69 5 7 2440349 37.3 N-116.5 W 3 40 0.
12.1 222.7 13 47 56.0 13 44 59.8 7656 F2
                                             69/05/07
2440349 37.3 N 116.5 W
                          5.8
                  12.1
                                  13-47-56.0
                                              13-44-59.8
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                          222.7
  PHGJLHXIID
                                                3 CALIFO
RNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER REGI
ΩN
167 7656 F3 69 5 7 2440349 37.3 N-116.5 W 3 40 0.
12.1 222.7 13 47 50.0 13 44 59.8 7656 F3
                                            69/05/07
2440349
        37.3 N 116.5 A
                          5.8
                          222.7
                                  13-47-56.0
                                              13-44-59.8
                   12.1
  PHGJLHxIID
                                                3 CALIFO
RNIA - NEVADA PEGION
                          40 CALIFORNIA-NEVADA BORDER REGI
167 7656 F4 69 5 7 2440349 37.3 N-116.5 W 3 40 0.
12.1 222.7 13 47 50.0 13 44 59.8 7656 F4
                                             69/05/07
2440349
        37.3 N 110.5 W
                          5.8
                  12.1
                          222.7
                                  13-47-56.0
                                              13-44-59.8
  PHGJLHXIID
                                                3 CALIFO
RNIA - NEVADA REGION
                         40 CALIFORNIA-NEVADA BORDER PEGI
ON
168 7659 8M 69 5 27 2440369 37.1 N-116.0 w 3 40 0.
12.0 220.6 14 17 55.1 14 14 59.8 7659 BM
                                             69/05/27
                          5.0
2440369
        37.1 N
                116.0 N
                                              14-14-59.8
              O
                  12.0
                          220.6
                                14-17-55.1
  XDZZLIDVHP
                                                3 CALIFO
RNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER REGI
168 7659 F1 69 5 27 2440369 37.1 N-116.0 w 3 40 0.
12.0 220.6 14 17 55.1 14 14 59.8 7659 F1
                                             69/05/27
2440359 37.1 N 116.0 N 5.0
                                              14-14-59.8
                  12.0
                          220.6
                                  14-17-55.1
                                                3 CALIFO
   XDZZLIDVHR
PNIA - NEVADA REGION
                          40 CALIFORNIA-NEVADA BORDER PRGI
168 7659 F2 69 5 27 2440369 37.1 N-116.0 W 3 40 0.
12.0 220.6 14 17 55.1 14 14 59.8 7659 F2
                                            69/05/27
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440369
       37.1 N
               116.0 W
                          5.0
                 12.0
                                 14-17-55.1
                                             14-14-59.8
                         9.025
 XDZZLIDVHB
                                               3 CALIFOR
NIA - NEVADA REGION
                         40 CALIFORNIA-NEVADA BURDER REGIO
168 7659 F3 69 5 27 2440369 37.1 N-116.0 N 3 40 0.
                                                       0
12.0 220.6 14 17 55.1 14 14 59.8 7659 F3
                                           69/05/27
                                                       2
      37.1 N 116.0 W 5.0
1140369
                 12.0
                        220.6 14-17-55.1 14-14-59.8
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3 CALIFOR
 XUZZLIDVHB
NIA - NEVADA REGIÓN
                         40 CALIFORNIA-NEVADA BOPDER REGIO
168 7659 F4 69 5 27 2440369 37.1 N=116.0 W 3 40 0.
12.0 220.6 14 17 55.1 14 14 59.8 7659 F4
                                            69/05/27
                         5.0
440369 37.1 N 116.0 W
                 12.0
                         220.6
                                 14-17-55.1
                                             14-14-59.8
                                               3 CALIFOR
 XUZZEIDVHB
                         40 CALIFORNIA-NEVADA BORDER REGIO
NIA - NEVADA REGIUN
169 1167 PM 69 7 16 2440419 37.1 N-116.1 w 3 40 0.
                                                       n
12.1 220.9 14 57 55.7 14 54 59.7 1167 BM 69/07/16
440419 37.1 N 116.1 W
                         5.6
                                             14-54-59.7
                  12.1
                         220.9
                               14-57-55.7
 LIPDJSCWXW
                                               3 CALIFOR
NIA - NEVADA REGION
                         40 CALIFORNIA-NEVADA BORDER REGIO
Ni
169 1167 F1 69 7 16 2440419 37.1 N=115.1 W 3 40 0.
12.1 220.9 14 57 55.7 14 54 59.7 1167 F1
                                            69/07/16
440419
       37.1 N 116.1 W
                          5.6
             0
                 12.1
                         220.9
                                 14-5/-55.7
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                                               3 CALIFOR
 LIRUJSCHXN
NIA - NEVADA REGION
                         40 CALIFORNI -- NEVADA BORDER REGIO
159 1167 F2 59 7 16 2440419 37.1 N-116.1 N 3 40 0.
12.1 220.9 14 57 55.7 14 54 59.7 1157 F2
                                            69/07/16
                                                     2
440419 37.1 M 116.1 W 5.6
                                             14-54-59.7
                 12.1
                         220.9 14-57-55.7
                                               3 CALIFOR
 LIPDJSCWXW
NIA - NEVADA REGION
                         40 CALIFORNIA-NEVADA BURDER REGIO
169 1167 F3 69 7 16 2440419 37.1 N=115.1 w 3 40 0.
12.1 220.9 14 57 55.7 14 54 59.7 1167 F3 69/07/16
440419 37.1 N 115.1 W 5.6
                 12.1
                         6.055
                                 14-57-55.7
                                             14-54-59.7
 LIPOJSCAXN
                                               3 CALIFOR
NIA - MEVADA REGION
                         40 CALIFORNIA-NEVADA RORDER REGIO
159 1167 F4 69 7 16 2440419 37.1 N-115.1 W 3 40 0.
12.1 220.9 14 57 55.7 14 54 59.7 1167 F4 69/07/16
440419 37.1 N 116.1 N 5.6
                                             14-54-59.7
                               14-57-55.7
                         220.0
             Λ
                 12.1
                                               3 CALIFOR
 UTROJSCHXW
MIA - MEVADA REGIUN
                         40 CALIFORNIA-NEVADA BORDER REGIO
170 6917 8M 71 5 7 2441079 33.0 N 127.0 E 20 231 33.
                                                     33
R7.3 317.7 0 52 30.4 0 39 41.0 6917 BM
                                          71/05/07
       33.0 M
               127.0 F
441079
                          4.5
                                 00-52-30.4
                                             00-39-41.0
            33
                 87.3
                         317.7
  VUERTOGUZL
                                              20 SOUTHWE
STERN JAPAN AND RYUKYU IS 231 SOUTH KOREA
170 6017 F1 71 5 7 2441070 33.0 N 121.0 E 20 231 33.
                                                      33
7.3 317.7 0 52 30.4 0 39 41.0 6917 F1
                                           71/05/07
                                                      24
               127.0 E 4.5
41079 33.0 N
                A7.3
                        317.7
                              00-52-30.4
                                            00-39-41.0
           33
 VJERTOGOZL
                                             20 SOUTHWES
TERM JAPAN AND RYUKYN IS 231 SOUTH KORFA
170 6917 F2 71 S 7 2441079 33.0 N 127.0 E 20 231 33. 33
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7.3 317.7 0 52 30.4 0 39 41.0 6917 F2
                                          71/05/07 24
      33.0 N 127.0 E 4.5
                                           00-39-41.0
                87.3
                        317.7
                               00-52-30-4
           33
VJERTOGOZL
                                            20 SOUTHWES
TERN JAPAN AND RYUKYU IS 231 SOUTH KORFA
170 6917 F3 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33
7.3 317.7 0 52 30.4 0 39 41.0 6917 F3
                                          71/05/07
      33.0 N 127.0 E 4.5
41079
                               00-52-30.4
                                          00-39-41.0
          33
                87.3
                        317.7
VJERTOGRZL
                                            20 SOUTHWE'S
TERN JAPAN AND RYUKYU IS 231 SOUTH KORFA
170 6917 F4 71 5 7 2441079 33.0 N 127.0 E 20 231 33.
7.3 317.7 0 52 30.4 0 39 41.0 6917 F4
                                          71/05/07
41079
      33.0 N 127.0 E 4.5
                              00-52-30.4 00-39-41.0
           33
                87.3
                        317.7
VJERIOGQZL
                                            20 SOUTHWES
TERN JAPAN AMD RYUKYU IS 231 SOUTH KORFA
171 8814 BM 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33
8.4 329.6 10 34 21.0 10 21 25.8 8814 BM
                                          71/06/05
41108 37.9 N 113.7 E 4.7
          33
                P8.4
                        329.6
                              10-34-21.0
                                           10-21-25.8
UWEKILMHUS
                                            41 EASTERN
                       658 NORTHEASTERM CHINA
ASIA
171 8814 F1 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33
8.4 329.6 to 34 21.0 to 21 25.8 8814 Ft 71/06/05
41108
      37.9 N
              113.7 E 4.7
           33
                        329.6
               A8.4
                              10-34-21.0
                                          10-21-25.8
QWEKILMHUS
                                            41 EASTERN
                       658 NORTHEASTERM CHINA
ASTA
171 8814 F2 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33
8.4 329.6 10 34 21.0 10 21 25.8 8814 F2
                                          71/06/05
41108 37.9 N 113.7 E 4.7
                88.4
                        329.6 10-34-21.0
           33
                                           10-21-25.A
GWEKILMHUS
                                            41 EASTERN
ASIA
                       658 NORTHFASTERN CHINA
171 8814 F3 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33
8.4 329.6 10 34 21.0 10 21 25.8 8814 F3
                                          71/06/05
41108
      37.9 N
              113.7 E
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                        329.6
                               10-34-21.0
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           33
GWEKILMHUS
                                              ASTERN
ASIA
                       658 NORTHEASTERN CH . .
171 8814 F4 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33
8.4 329.6 10 34 21.0 10 21 25.8 8814 F4
                                          71/06/05
     37.9 N
              113.7 E 4.7
                98.4
                        329.6 10-34-21.0
           33
                                          10-21-25.8
GWEKILMHUS
                                            41 EASTERN
ASIA
                       658 NORTHEASTERN CHINA
172 8816 PM 71 6 6 2441109 53.8 N=171.9 w 1 9272. 272
1.2 305.0 4 7 41.8 3 59 53.9 8816 RM
                                          71/06/06
      53.8 N
              171.9 w 5.2
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305.0

41.2

272

MGQWARDCLO

04-07-41.8

03-59-53.9

1 ALASKA -

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ALEUTIAN ARC
                         9 FOX ISLANDS, ALFUTIAN ISLANDS
172 8816 F1 71 6 6 2441109 53.8 N-171.9 W 1
                                             9272. 272
1.2 305.0 4 7 41.8 3 59 53.9 8816 F1
                                         71/06/06
41109 53.8 N
              171.9 W
                        5.2
                41.2
                        305.0
                               04-07-41.8
                                          03-59-53.9
          272
MGUWWRDCLO
                                             1 ALASKA -
ALEUTIAN ARC
                         9 FOX ISLANDS, ALEUTIAN ISLANDS
172 8816 F2 71 6 6 2441109 53.8 N=171.9 v 1 9272. 272
1.2 305.0 4 7 41.8 3 59 53.9 8816 F2
                                          71/06/06
      53.8 N
              171.9 W
                        5.2
         272
                41.2
                        705.0
                              04-07-41.8
                                           03-59-53.9
MGGWWRDCLO
                                             1 ALASKA -
ALEUTIAN ARC
                         9 FOX ISLANDS, ALFUTIAN ISLANDS
172 8816 F3 71 6 6 2441109 F3.8 N-171.9 w 1 9272. 272
1.2 305.0 4 7 41.8 3 59 53.9 8816 F3
                                         71/06/06 24
41109
      53.8 N
              171.9 A 5.2
         272
               41.2
                        305.0
                                           03-59-53.9
                               04-07-41.8
MGRWWPDCLO
                                             1 ALASKA -
ALEUTIAN ARC
                         9 FOX ISLANDS, ALEUTIAN ISLANDS
172 8816 F4 71 6 6 2441109 53.8 N=171.9 N 1 9272. 272
1.2 305.0 4 7 41.8 3 59 53.9 8816 F4
                                         71/06/06 24
              171.9 A 5.2
41109 53.8 %
          272
                                           03-59-53.9
                41.2 305.0 04-07-41.8
MGNWMPDCLO
                                             1 ALASKA -
ALEUTIAN ARC
                         9 FOX ISLANDS, ALEUTIAN ISLANDS
173 8823 BM /1 6 10 2441113 41.1 N 136.4 E 19 223226. 226
5.4 315.2 20 11 12.8 19 59 25.7 8823 RM
                                          71/06/10 24
       41.1 N 138.4 E 5.7
                75.4
                               20-11-12.8
          550
                        315.2
                                           19-59-25.7
UGRKDEIPLC
                                            19 JAPAN -
FURILES - KAMCHATKA
                       223 EASTERN SEA OF JAPAN
173 8823 F1 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226
5.4 315.2 20 11 12.8 19 59 25.7 8823 F1
                                         71/06/10 24
41113 41.1 N 138.4 E 5.7
          220
                75.4
                        315.2 20-11-12.8
                                           19-59-25.7
UGRKDEIPLC
                                           19 JAPAN -
KURILES - KAMCHATKA
                      223 EASTERN SEA OF JAPAN
173 8823 F2 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226
                                                         7
5.4 315.2 20 11 12.8 19 59 25.7 8823 F2
                                         71/06/10 24
      41.1 N 138.4 E 5.7
41113
               75.4
                                           19-59-25.7
                        315.2
                             8.51-11-05
         556
UGRKDEIPLC
                                           19 JAPAN -
KUPILES - KAMCHATKA
                       223 EASTEPN SEA OF JAPAN
173 HM23 F3 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226
                                                         7
5.4 315.2 20 11 12.8 19 59 25.7 8823 F3 71/06/10 24
41113 41.1 1 138.4 E 5.7
               75.4
                       315.2 20-11-12.8
          550
                                           19-59-25.7
UGRKDFIPLO
                                            19 JAPAN -
KUPILES - KAMCHATKA 233 EASTERN SEA OF JAPAN
1/3 8823 F4 71 5 10 2441113 41.1 N 138.4 E 19 223226. 226
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5.4 315.2 20 11 12.2 19 59 25.7 d823 F4 71/06/10 24

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41.1 N
41113
                138.4 E
                         5.7
                 75.4
                        315.2 20-11-12.8
                                           19-59-25.7
          559
UNRKDEIPLC
                                              19 JAPAN -
                        223 EASTERN SEA OF JAPAN
KURILES - KAMCHATKA
174 8824 8M 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57
1.5 121.4 13
              3 47.1 12 55 57.0 8824 BM
                                            71/06/11
      18.0 N
                069.8 W
                         6.1
                                13-03-47.1
                                             12-55-57.0
           5.7
                 41.5
                        121.4
FLQKIEPMEZ
                                              7 CARIBREA
N LOOP
                        88 DOMINICAN REPUBLIC REGION
174 8824 F1 71 6 11 2441114 18.0 N -69.8 W 7 88 57.
                                                      57
    121.4 13
               3 47.1 12 55 57.0 8824 F1
                                            71/06/11
1.5
               069.8 W
     18.0 N
41114
                         6.1
                                             12-55-57.0
           57
                 41.5
                                13-03-47-1
                         121.4
FLOKIEPMEZ
                                               7 CARTBBEA
N LUOP
                         88 DOMINICAN REPUBLIC REGION
174 8824 F2 71 o 11 2441114 18.0 N -69.8 w 7 88 57.
                                                       57
1.5 121.4 13 3 47.1 12 55 57.0 8824 F2
                                            71/06/11
                                                       24
41114 18.0 N
               069.8 W
                         6.1
           57
                 41.5
                                13-03-47.1
                                             12-55-57.0
                         121.4
FLOKIEPMEZ
                                               7 CARIBBEA
                         AR DOMINICAN REPUBLIC REGION
N LUOP
174 8824 F3 71 6 11 2441114 18.0 N -69.8 W 7 88 57.
1.5 121.4 13 3 47.1 12 55 57.0 8824 F3
                                            71/06/11
               069.8 V
      18.0 N
                         6.1
                 41.5
                         121.4
                                13-03-47.1
                                             12-55-57.0
           57
FLQKIEPME7
                                               7 CARIBBEA
N LOOP
                         88 DOMINICAN REPUBLIC REGION
174 8824 F4 71 6 1! 2441114 18.0 N -69.8 W 7 88 57.
1.5 121.4 13 3 47.1 12 55 57.0 8824 F4
                                            71/06/11
41114 18.0 N
               069.8 W 6.1
                 41.5
                        121.4 13-03-47.1
                                             12-55-57.0
FLUKIEPMEZ
                                               7 CARTBBEA
                         88 DOMINICAN REPUBLIC REGION
N LOOP
                                                     33
175 9216 PM 71 6 14 2441117 56.2 N 123.6 E 41 656 33.
9.2 332.9 14 0 1.9 13 48 51.4 9216 BM
                                           71/06/14
41117
              123.6 E 5.6
       56.2 V
                         332.9
                 69.2
                               14-00-01.9
                                            13-48-51.4
           33
MINUDOLICM
                                              41 EASTERN
ASIA
                        656 EASTERN RUSSIA
175 9216 F1 71 6 14 2441117 56.2 N 123.6 E 41 656 33.
9.2 332.9 14 0 1.9 13 48 51.4 9216 F1
                                            71/06/14
              123.0 E 5.6
41117
       56.2 N
           33
                 69.2
                        332.9
                               14-00-01.9
                                            13-48-51-4
MIMUDDLICW
                                              41 EASTERN
ASTA
                        656 EASTERN RUSSIA
175 9216 F2 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33
     332.9 14 0 1.9 13 48 51.4 9216 F2
                                           71/06/14
       50.2 N
              123.6 E 5.6
41117
                 69.2
                         332.9
                               14-00-01.9
                                            13-48-51.4
MINHIDGLICH
                                              41 EASTERN
ASTA
                       656 EASTERN RUSSIA
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175 9216 F3 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 9.2 332.9 14 0 1.9 13 48 51.4 9216 F3 41117 56.2 N 123.6 E 5.6 33 332.0 14-00-01-9 13-48-51.4 69.2 MINUDGLICM 41 EASTERN 656 EASTERN RUSSIA ASIA 175 9216 F4 71 0 14 2441117 56.2 N 123.6 E 41 656 33. 6 9.2 332.9 14 0 1.9 13 48 51.4 9216 F4 71/06/14 56.2 N 41117 123.6 E 5.6 332.9 14-00-01-9 13-48-51.4 33 69.2 MINUDOLICM 41 EASTERN ASTA 656 EASTERN RUSSIA 176 176 8827 RM 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 92 355.8 7 52 44.3 7 30 32.0 8827 BM 71/06/15 244 . 1 5.6 1118 41.4 N 079.4 E 92.1 355.8 07-52-44.3 07-39-32.0 33 OWNRJLOJEC 27 SOUTHERN SINKTANG TO KANSH 320 KIRGIZ-SINKIANG BORDER REGION 176 8827 F1 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 2.1 355.8 7 52 44.3 7 39 32.0 8827 F1 41118 41.4 N 079.4 E 5.6 33 92.1 355.8 07-52-44.3 07-39-32-0 OWWRJEDJRC 27 SOUTHERN 320 KIRGIZ-SINKTANG BORDER REGION STAKIANG TO KANSU 176 8827 F2 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 2.1 355.8 / 52 44.3 7 39 32.0 8827 F2 71/06/15 41.4 N 079.4 E 5.6 33 92.1 355 A 07-52-44.3 07-39-32-0 OWARJEOJRC 27 SOUTHERN SINKIANG TO KANSU 320 KIRGIT-SINKTANG BORDER REGION 176 8827 F3 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 a 2.1 355.8 7 52 44.3 7 39 32.0 8827 F3 41.4 N 079.4 E 5.6 33 95.1 355 A 07-52-44.3 07-39-32-0 GWWRJLOJRC 27 SOUTHERN STUKIANG TO KANSU 320 KIRCIZ-SINKTANG BORDER REGION 176 A827 F4 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 Q 2.1 355.8 7 52 44.3 7 39 32.0 8827 F4 71/06/15 079.4 E 5.6 41118 41.4 N 33 92.1 155.A 07-52-44.3 07-39-32.0 OSCULTRAND 27 SOUTHERN SINKIANG TO KANSU 320 KIRGIZ-SINKTANG BORDER REGION 177 BAZA AM 71 6 15 2441118 41.5 N 79.3 E 27 320 333 33 O 2.0 355.9 22 29 57.1 22 15 45.3 HAZA AM 71/06/15 41.5 N 079.3 E 5.1 41118 15.0 **155.0** 22-29-57.1 22-15-4553 33 LIGVAGHEJO 27 SOUTHERN 320 KIRGIZ-SINKIANG BORDER REGION SINKIANG TO KANSU 177 BREA F1 71 6 15 2441119 41.5 N 79.3 E 27 320 33. 33 0

355.9 22 28 57.1 22 15 45.3 8828 F1 71/06/15

2.0

LSVEGRHTKM

SINKIANG TO KANSU

41118 41.5 N 079.3 E 5.1 92.0 355.9 22-28-57.1 27-15-45.3 33 27 SOUTHERN LTUVAGBEJO 320 KIRGIZ-SINKIANG BORDER REGION STAKLANG TO KANSU 177 8828 F2 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 71/06/15 '24 2.0 355.9 22 28 57.1 22 15 45.3 8828 F2 41.5 N 079.3 E 41118 5.1 355.9 22-28-57.1 22-15-45.3 92.0 33 27 SOUTHERN LIGVWGBEJO 320 KIRGIZ-SINKIANG BORDER REGION SINKIANG TO KANSU Q 177 8828 F3 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 355.9 22 28 57.1 22 15 45.3 8828 F3 71/06/15 2.0 41118 41.5 N 079.3 E 5.1 33 92.0 755.0 22-28-57.1 22-15-45.3 27 SOUTHERN LIGVWGBEJO 320 KIRGIZ-SINKIANG BORDER REGION STAKIANG TO KANSU Q 177 8828 F4 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 2.0 355.9 22 28 57.1 22 15 45.3 8828 F4 71/06/15 41.5 N 079.3 E 5.1 41118 22-15-45.3 33 92.0 355.9 22-28-57.1 27 SOUTHERN LTOVAGBEJO 320 KIRGIZ-SINKTANG BORDER REGION SINKIANG TO KANSU 178 8831 BM 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 2.1 355.9 11 22 6.7 11 8 54.4 8831 RM 71/06/16 24 41.4 U 079.3 E 41119 4.3 355.9 11-22-06.7 11-08-54.4 239 92.1 27 SOUTHERN LSVEGRHTKM 320 KIRGIZ-SINKIANG BORDER REGION SINKIANG TO KANSU 178 8831 F1 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 2.1 355.9 11 22 6.7 11 8 54.4 8831 F1 71/06/16 41.4 N 079.3 E 4.3 41119 239 355.0 11-22-00.7 11-08-54.4 92.1 LSVEGRHTKM 27 SOUTHERN 320 KIRGIZ-SINKIANG BORDER PEGION SINKLANG TO KANSU 178 8831 F2 71 o 16 2441119 41.4 N 79.3 E 27 320239. 239 2.1 355.9 11 22 6.7 11 8 54.4 8831 F2 71/06/16 079.3 E 41119 41.4 3 4.3 355.0 11-08-54-4 239 05.1 11-22-06.7 27 SOUTHERN LSVEGRHTKM 320 KIRGIZ-SINKIANG BORDER REGION SINKIANG TO KANSU 178 8831 F3 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 2.1 355.9 11 22 6.7 11 8 54.4 8831 F3 71/06/16 24 41119 41.4 N 079.3 E 4.3 1.50 355.9 11-22-06.7 11-08-54.4 239 LSVEGRHTKM 27 SOUTHERN SINKLANG TO KANSU 320 KIRGIT-SINKLANG HORDER REGION 178 8831 F4 71 6 16 2441110 41.4 N 79.3 E 27 320239. 239 2.1 355.9 11 22 6.7 11 8 54.4 8831 F4 71/06/16 41.4 N 079.3 E 4.3 41119 239 1.50 355.9 11-22-06.7 11-08-54.4 27 SOUTHERN

320 KIRGIZ-SINKTANG BORDER REGION

179 8936 RM 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9.6 265.8 11 36 48.8 11 23 2.4 8936 RM 71/06/22 24 41125 9.8 S 160.2 E 5.4 20 99.6 265.8 11-36-48.8 11-23-02.4 LFKGZQKRSY 15 BISMARCK AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F1 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 50 a 9.6 265.8 11 36 48.8 11 23 2.4 8936 F1 71/06/22 41125 9.8 S 150.2 E 5.4 99.6 11-23-02.4 265.8 11-36-48.8 50 15 BISMARCK LFKGZOKASY AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

170 3936 F2 71 6 22 2441125 -9.8 \$ 160.2 E 15 193 20. 20 9.6 265.8 11 36 48.8 11 23 2.4 8936 F2 71/06/22 24 41125 160.2 E 9.8 S 5.4 99.0 265.8 11-36-48.8 11-23-02-4 20 LEKGZOKRSY 15 BISMAPCK AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F3 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9 9.6 265.8 11 36 48.8 11 23 2.4 8936 F3 71/06/22 24 41125 9.8 S 160.2 E 5.4 20 99.6 265.8 11-36-48.8 11-23+02.4 LFRGZOKRSY 15 BISMARCK AND SOLOMON ISLANDS

179 8936 F4 71 6 22 2441125 ~9.8 S 160.2 E 15 193 20. 20 9.6 265.8 11 36 48.8 11 23 2.4 8936 F4 71/06/22 160.2 E 41125 9.5 5 5.4 00.0 265.8 11-23-02.4 11-36-48.8 20 LEKGZOKRSY 15 HISMARCK AND SPLOMPH ISLANDS 193 SULLMUN ISTATION

180 8935 RM 71 6 22 2441125 76.2 N 69.8 E 53 718166. 166
7.3 3.2 6 43 16.0 6 29 39.7 8935 RM 71/06/22 24
41125 36.2 N 069.6 E 4.9
166 97.3 3.2 06-43-16.0 06-29-39.7
TFIVCYVLUD 53 G PFG =
718 400 0 ST 70 718 HINDU KUSH REGION

- 1 5 62 71 5 22 2441125 36.2 N 59.8 E 53 718166. 166 9
... - 1 16.1 6 24 30.7 8935 F2 71/06/22 24
... - 1.4
... - 1.9
... - 1.9
... - 1.7 06-43-16.0 06-29-39.7
... - 53 G REG =

71. 54.4 5 53 718166. 166 9

C

a

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3.2 06-43-16.0
          160
                97.3
                                            06-29-39.7
TEIVCYVLQD
                                             53 G RFG =
718 AND D GT 70
                      718 HINDU KUSH REGION
181
    8935 F4 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166
       3.2 6 43 16.0 6 29 39.7 8935 F4
7.3
                                           71/06/22 24
41125
       30.2 N
              069.8 E 4.9
                97.3
                          3.2 06-43-10.0
                                            06-29-39.7
          166
TFIVCYVL(4D
                                             53 G REG =
718 AND D GT 70
                       718 HINDU KUSH PEGION
181 8938 BM 71 6 24 2441127 37.2 N=116.1 W 3 40 5. 5
                                                          1
2.0 221.2 14 7 2.5 14 4 7.5 8938 RM
                                           71/06/24
                        0.0
       37.2 N
41127
              116.1 W
                        221.2 14-07-02.5
                                            14-04-07.5
                12.0
                                              3 CALIFORN
XJSUWTYJLH
TA - MEVADA REGION
                        40 CALTFORMIA-NEVADA BORDER REGION
181 8938 F1 71 6 24 2441127 37.2 N=116.1 & .3 40 5.
2.0 221.2 14 7 2.5 14 4 7.5 8938 F1
                                          71/06/24
                        0.0
41127 37.2 N 116.1 W
                12.0
                        221.2 14-07-02.5
                                           14-04-07.5
XJSUNTYJLH
                                              3 CALTFORN
TA - NEVADA REGION
                        40 CALIFORNIA-MEVADA BORDER RRGION
181 8958 F2 71 6 24 2441127 37.2 N-116.1 w 3 40 5.
                                                     5
                                                          1
2.0 221.2 14 7 2.5 14 4 7.5 8938 F2
                                           71/06/24
41127 37.2 N 116.1 7 0.0
                        221.2 14-07-02.5
                12.0
                                            14-04-07.5
X JSUWTYJLH
                                              3 CALTFORN
TA - WEVADA REGION
                        40 CALTECKNIA-NEVADA BORDER PEGION
181 8938 F3 71 6 24 2441127 37.2 N=116.1 N 3 40 5. 5
2.0 221.2 14 7 2.5 14 4 7.5 8938 F3
                                          71/06/24 24
41127 37.2 N 116.1 W
                        0.0
                        221.2 14-07-02.5
                                            14-04-07.5
                12.0
                                              3 CALIFORN
XJSUWTYJLH
IA - MEVADA PERION
                       40 CALIFORMIA-NEVADA BORDER REGION
181 A938 F4 71 6 24 2441127 37.2 N=116.1 3 3 40 5.
                                                     5
2.0 221.2 14 7 2.5 14 4 7.5 HO39 F4
                                          71/06/24
41127 37.2 %
              116.1 A
                         0.0
                        221.2 14-07-02.5
                                            14-04-07.5
                12.0
                                             3 CALTFORM
XJSUNTYJLH
IA - NEVADA REGION
                        40 CALIFORNIA-MEVADA BORDER REGION
182 HO40 PM 71 6 26 2441120 19.0 N -68.0 N 7 89 33. 33
1.8 118.5 15 55 20.0 15 47 27.2 8940 RM
                                           71/06/26
41129 19.0 14
                        5.3
              068.0 4
                        114.5
                              15-55-20.0
                                            15-47-27.2
           33
                41.4
DORFLANTZD
                                              7 CARTBREA
4 LOOP
                        A9 MONA PASSAGE
182 8940 F1 71 6 26 2441129 19.0 N -68.0 W 1.8 118.5 15 55 20.0 15 47 27.2 8940 F1
                                           7 89 33. 33
                                           71/06/26
              068.0 0 5.3
41129 19.0 %
                        119.5 15-55-20.0
                                           15-47-27.2
                41.8
DOBELBATZO
                                             7 CARTBREA
N LUCP
                        89 MONA PASSAGE
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187 8940 F2 71 6 26 7441129 19.0 N -68.0 W 7 89 33. 33
1.8 118.5 15 55 20.0 15 47 27.2 8940 F2
                                          71/06/26
                                                    24
41129 19.0 N 068.0 N 5.3
                                          15-47-27.2
                41.8
                      118.5
                             15-55-20.0
          33
                                            7 CARTBREA
DOBELSWIZE
                        A9 MONA PASSAGE
N LOOP
182 8940 F3 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33
1.8 118.5 15 55 20.0 15 47 27.2 8940 F3
                                          71/06/26
     19.0 N
              058.0 W
                       5.3
                                         15-41-27.2
                41.8
                        114.5
                               15-55-20.0
           33
                                             7 CARIBBEA
DOHFLANTZO
                        89 MONA PASSAGE
N LOOP
182 8940 F4 71 6 26 2441129 19.0 N -68.0 N 7 89 33. 33
1.8 118.5 15 55 20.0 15 47 27.2 8940 F4
                                          71/06/26
41129 19.0 to 068.0 N 5.3
                       118.5 15-55-20.0
                                          15-47-27.2
               41.8
           33
                                            7 CARTBBLA
DOBFLBATZD
                        AG MONA PASSAGE
M LOOP
163 8042 AM 71 6 26 2441120 36.3 N 71.4 E 48 717127. 127
7.3 1.9 22 36 49.1 22 23 13.0 8942 AM
                                         71/06/26 24
       30.3 N
              071.4 E
                       5.0
41129
                                           22-25-13.0
         127
                         1.0
                               22-36-49.1
               97.3
                                            46 HINDU KU
FRACOUTANSO
SH AND PANTE
                      717 AFGHANISTAU-USSR BURDER REGION
183 8042 F1 71 6 26 2441129 36.3 % 71.4 E 48 717127. 127
7.7 1.9 22 36 49.1 22 25 13.0 4942 61
                                         71/06/26 24
       36.3 1 071.4 ± 5.0
41129
                                           22-23-13.0
                        1.0
               97.3
         121
                               22-36-19.1
                                            48 HINDU KU
LKUR HIYMSR
                      717 AFGHAMISTAM-USER RURDER REGION
SH AND PAVIR
183 HOUR FR 71 5 26 2411129 36.3 1 71.4 E 48 717127. 127
7.3 1.0 22 36 10.1 22 23 13.0 HQ42 F2 71/06/20 24
        3.3
              671.4 E 5.0
05110
          127
                         1.0
                              22-36-49.1 22-23-13.0
               97.3
                                            4H HINDU KII
EXECTIFIANSO
                      717 AFGHANISTAN-USSR BORDER REGION
SH 410 PAVIH
181 A942 F4 71 6 26 2401129 36.5 N 71.4 E 48 717127. 127
7.3 1.0 >> 36 44.1 22 23 13.0 4942 F3
                                         71/06/20
      30.3 % 071.4 E 5.0
41129
                         1.9
                                           22-23-13.0
                97.3
                               22-36-44.1
         127
                                            48 HINDU KU
LKIJCHITYMSD
                       717 AFGHANISTAN-USSR BORDER REGTUM
SH AND PARTH
1HT HOUR FU 71 0 24 2441120 TO.3 7 71.4 E UR 717127. 127
7.3 1.9 22 36 49.1 22 23 13.0 8942 F4 71/06/26 24
        36.3 % 071.4 F
211129
                        e 1,
                        1.9 22-36-49.1
                                           22-23-13.0
               97.5
          127
                                            48 HINDU KU
EKOCQUYMSO
                      717 AFGHAMISTAN-USSR ROPDER REGION
SH AND PAVIR
184 8943 AM 71 6 27 2441130 52.0 N-170.4 A 1 9 33. 33
0.0 301.0 18 15 N.A 18 7 23.4 8943 RM 71/06/27
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40.9 301.9 18-15-08.8 18-07-23.4

52.0 % 170.4 A 3.0

33

41130

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LZKD@WJVQY 1 ALASKA -ALFUTTAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS 184 8943 F1 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 /1 0.9 301.9 18 15 8.8 18 7 23.4 8943 F1 71/06/27 24 41130 52.0 N 170.4 W 3.0 40.9 18-15-08.8 33 301.9 18-07-23.4 LZKDWWJVQY 1 ALASKA -ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS 184 8943 F2 71 6 27 2441130 52.0 N=170.4 w 1 9 33. 33 u 0.9 301.9 18 15 8.8 18 7 23.4 8943 F2 71/06/27 41130 52.0 N 170.4 W 3.0 301.9 18-15-08.8 33 40.9 18-07-23.4 **LZKDWWJVQY** 1 ALASKA -ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS 184 8943 F3 71 6 27 2441130 52.0 N=170.4 N 1 9 33. 33 0.9 301.9 18 15 8.8 18 7 23.4 8943 F3 71/06/27 41130 52.0 N 170.4 N 3.0 33 301.9 40.0 18-07-23.4 18-15-08.8 LZKDWWJVQY 1 ALASKA -ALEUTIAN ARC 4 FOX ISLANDS, ALEUTIAN ISLANDS 184 8943 F4 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 0.9 301.9 th 15 H.H 18 7 23.4 HOUR F4 71/06/27 24 41130 52.0 \ 170.4 4 3.0 ζζ, 40.9 301.0 [H-15-0H]H 18-07-23-4 LZKDWWJVQY 1 ALASKA -ALEUTIAN ARC 9 FOR ISLANDS, ALFUTIAN ISLANDS 165 8944 AM 71 6 24 2441131 37.9 N 100.2 E 27 323 33. 33 q 0.8 335.0 5 11 50.5 5 1 43.0 HOLL HW 71/06/28 37.9 9 106.2 5 5.2 4113! 33 90.8 7 45 . A 05-14-50.3 05-01-43.9 CHeZULYAMG 27 SOUTHERN SINKIANG TO KANGU - 323 CONTHERM CHIMA 145 | 4944 F1 71 | 5 28 2441131 37.4 7 106.2 F 27 323 33. 33 J P. A 356.0 6 14 67.3 6 1-41.0 HOLL FT 71/06/28 41131 37.9 % 106.2 F 5.2 33 96.4 35.0 05-14-50.5 05-01-43.9 DUNZULYRHO 27 SOLTHERN STAKIANG TO KANGO 323 UNBTHERM CHIVA 185 8944 F2 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 0.8 335.0 5 14 50.5 5 1 43.0 8044 F2 71/06/28 37.9 N 105.2 E 5.2 41131 90.4 7 35 n 33 05-14-50.3 45-01-43.9 DUBZOLYPHQ 27 SOUTHERN STAKIANG TO KANSH 323 NORTHERN CHINA 185 8944 F3 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 0.8 355.0 5 14 50.3 5 1 47.9 8944 F3 71/06/28 24 41131 37.9 N 106.2 E 5.2 90.A 335.0 05-14-50.3 05-01-43.9 DUBZOLYRHO 27 SOUTHERN STAKIANG TO KAMSU 323 NORTHERN CHINA 185 8944 F4 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33

.8 335.0 5 14 50.7 5 1 43.9 R944 F4 71/06/28 106.2 E 1131 37.9 4 5.2 90.8 33 375.0 05-14-50.3 05-01-43.9 DUBZOLYRHO 27 SOUTHERN SINKIANG TO KANSU 323 NORTHERN CHINA 186 8954 8M 71 7 29 2441132 37.2 N 36.8 E 30 366 35. 35 .1 28.6 9 21 9.8 9 8 6.5 8954 8M 71/06/29 244 90 37.2 N 036.8 F 5.0 35 8.P0-15-P0 90.1 28.6 09-08-06.5 YGLGBJZDKG 30 MINDLE EA ST - CRIMEA - BALKANS 306 TURKEY 186 8954 F1 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90 . 1 28.6 9 21 9.8 9 8 6.5 8954 F1 71/06/29 244 37.2 N 036.8 F 5.0 1132 35 28.0 00-21-00.8 90.1 09-08-06.5 YGLGBJZDKU 30 MIDDLE EA ST - CRIMEA - BALKANS 300 TURKET 186 8954 F2 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90 28.6 9 21 9.8 9 8 6.5 8954 F2 71/06/29 244 _ 1 036.8 F S.O 37.2 " 35 28.6 90.1 00-21-00.8 09-08-06-5 YGLGRJZDKA 30 MINULE EA ST - CRIMEA - BALKANS 366 THPKEY 186 8954 F3 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90 .1 28.6 9 21 9.8 9 8 6.5 A954 F3 71/06/29 1132 37.2 % 036.8 F 5.0 35 90.1 28.6 09-21-09.8 09-08-06-5 YGLGPJZDKG 30 MIDDLE EA ST - CRIVEA - RALKANS 366 TURKEY 186 H954 F4 71 6 29 2441132 37.2 7 36.8 6 30 300 35. 35 90 .1 2M.6 9 21 9.4 9 8 6.5 8954 Fd 71/06/29 244 5 0 1132 37.2 " 036.8 E 24.00-15-00 10-08-06.5 90.1 Y61.68370K1 30 MIDDLE EA ST - CRIVER - RALKANG 300 TUPKEY 187 8955 8M 71 6 29 2481132 54.6 9-161.6 N 1 17 24. 24 35 .1 303.8 11 19 12.0 14 3 15.6 AGES HA 71/06/29 244 54.6 % 101.6 % 5.2 35.1 303.8 14-10-12.9 14-03-15.0 TSUFFULHMP 1 ALASKA -ALFUTIAN APE 17 SOUTH OF ALASKA 187 8955 F1 71 6 29 2441132 54.6 N=161.6 A 1 17 24. 24 35 .1 303.8 14 10 12.9 14 3 15.6 8955 Ft 1132 54.6 4 161.6 % 5.2 71/06/29 35.1 303.8 14-10-12.9 14-03-15.6 TSUFFOLHMP 1 ALASKA -ALFUTIAL APC 17 SUITH OF ALASKA 187 8955 F2 71 6 29 2401132 54.6 N-161.6 W 1 17 24. 24 35 .1 303.8 14 10 12.9 14 3 15.6 8955 F2 71/06/29 244 161.6 % 5.2 54.6 N 303.k 14-10-12.9 24 35.1 14-03-15.6 TSHEFOLEMP 1 ALASKA -

ALFUTIAN ARC 17 SOUTH OF ALASKA

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33 7.3 FELWKRWQMJ ORTH AMERICA	117.0 01-38-50.3 01-38-50.3 34 EASTERN N	
.3 117.0 1 38 50.3 1134 43.0 N 097.3		7
53 7.3 FELNKRWOMJ ORTH AMERICA	117.0 01-38-50.3 01-38-50.3 34 EASTERN N 463 MERRASKA	
.3 117.0 1 38 50.3 1134 43.0 N 097.3	2441134 43.0 N -97.3 N 34 463 33. 33 1 38 50.3 6919 F2 71/07/01 244 N 4.6	7
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FELAKRWOMJ	117.0 01-38-50.3 01-38-50.3 34 EASTERN N 403 NERRASKA	
.9 89.8 4 39 32.3 1136 41.4 N 072.2		24
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ORTH AMERICA

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190 AR39 AV 71 7 3 2441136 35.0 N -81.0 N 34 511 33. 33
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1 H7ZGBFWVS
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190 8839 F1 71 7 3 2441136 35.0 N -81.0 A 34 511 33. 33
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.5 112.7 4 15 43.4 H 10 42.9 8839 F1
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190 8839 F2 71 7 3 2441136 35.0 % -81.0 % 34 511 35. 33
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190 8839 F3 71 7 3 2441136 35.0 N +81.0 & 34 511 33. 33
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190 8830 F4 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33
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.3 112.7 R 15 43.4 R 10 42.9 R839 F4
                                       71/07/03 244
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              22.3 112.7 08-15-43.4 08-10-42.9
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1 HZZQBFWVS
                                         34 FASTERN N
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8961 BM 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 51 191 74.2 20 25 56.8 20 16 51.1 8961 BM 71/07/11 244 .0 37.2 N 036.8 W 5.2 1144 51.0 74.2 20-25-56.8 20-16-51.1 32 ATLANTIC GRUVOQTVGL 403 NORTH ATLANTIC RIDGE OCEAN 191 8961 F1 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51 74.2 20 25 56.8 20 16 51.1 8961 F1 71/07/11 244 . 0 37.2 N 036.8 W 5.2 1144 20-16-51.1 74.2 20-25-56.8 O 51.0 32 ATLANTIC GRUVONTVGL 403 MORTH ATLANTIC RIDGE OCEAN 191 8961 F2 71 7 11 2441144 37.2 N -36.8 W 37 403 9. 9 51 74.2 20 25 56.8 20 16 51.1 8961 F2 71/07/11 244 .0 1144 37.2 N 036.8 W 5.2 20-25-56.8 20-16-51.1 51.0 74.2 32 ATLANTIC GRUVOGTVGL 403 NORTH ATLANTIC RIDGE DEEAN 191 8961 F3 71 7 11 2441144 37.2 N -36.8 N 32 403 9. 9 74.2 20 25 56.8 20 16 51.1 8961 F3 71/07/11 244 .0 37.2 N 036.8 W 5.2 1144 74.2 20-25-56.A 20-16-51-1 0 51.0 32 ATLANTIC GRUVOGTVGL 403 NORTH ATLANTIC RIDGE OCEAN 191 8961 F4 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51 74.2 20 25 56.8 20 16 51.1 8961 F4 71/07/11 244 .0 1144 37.2 4 056.8 A 5.2 20-16-51-1 51.0 74.2 20-25-56.8 32 ATLANTIC GRUVOGTVGL 403 NOPTH ATLANTIC RIDGE OCFAN 192 8964 BV 71 7 15 2441148 44.8 N 10.8 E 36 545 8. A 73 41.4 1 44 55.3 1 33 20.6 8964 bm 71/07/15 . 3 1148 44.8 M 010.8 F 5.2 41.4 01-44-55.3 01-33-20.6 7 7 . 7 36 MORTHWEST **RIFLJEUHCC** ERM EUROPE SUS MORTHERN ITALY 192 8964 F1 71 7 15 2441148 44.8 N 10.8 E 36 545 8. A 73 41.4 1 44 55.3 1 33 20.6 8964 F1 244 71/07/15 44.8 N 010.8 F 5.2 1148 41.4 01-44-55.7 01-33-20.6 73.3 36 NORTHWEST **ATFLJEUHCC** 545 NORTHERN ITALY ERM FUROPE 192 8964 F2 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73 .3 41.4 1 44 55.7 1 57 20.6 8964 F2 71/07/15 244 1148 44.8 N 010.8 E 5.2 41.4 01-44-55.3 01-33-20.6 73.3 36 NORTHWEST OTFLJEUHCC 545 NORTHERN ITALY ERM EUROPE 192 8964 F3 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73 41.4 1 44 55.3 1 33 20.6 8964 F3 71/07/15 244 . 3 1148 44.8 N 010.8 E 5.2

OTĖLJEUHCC	41.4 01-44-55.3 545 MORTHERN ITALY	01-33-20.6 36 NORTHWEST	
192 8964 F4 71 7 15 .3 41.4 1 44 55.3 1148 44.8 N 010.8 73.3	2441148 44.8 N 10.8 E 1 33 20.6 8964 F4 E 5.2 41.4 01-44-55.3	71/07/15 244	73
193 8967 BM 71 7 17	545 NORTHERN ITALY 2441150 38.3 N 39.8 E		90
1150 38.3 N 039.8	21 45 18.4 A967 BM F 4.5 26.0 21-58-21.5		
ST - CRIMEA - RALKANS	366 TUPKFY	30 - 10022 - 2	
.0 20.0 21 58 21.5 1150 38.3 N 039.8	2441150 38.3 N 39.8 E 21 45 18.4 8967 F1 E 4.5	71/07/17 244	90
33 90.0 YWDLUKYKOR SI - CRIMEA - RALKANS		21-45-18.4 30 MIDDLE EA	
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33 90.0 YAPLUKYKGR ST - CRIMEA - HALKANS	E 4.5 25.0 21-58-21.5 366 TURKEY	21-45-18.4 30 MIDDLE EA	
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	26.0 21-58-21.5	21-45-18.4 30 MIDDLE EA	
	2441150 78.3 7 79.8 E 21 45 18.4 8967 F4 F 4.5		90
37 90.0 YWDLUKYKOR ST - CRIMEA - RALKANS	20.0 21-58-21.5 366 TURKEY	21-45-18.4 30 MIDDLE EA	
	2441157 39.5 N 70.7 E 11 43 34.4 9137 BM E 5.6		94
	2.4 11-56-55.7 715 TAPZHIK SSR	11-43-34.4 48 HINDU KUS	
.1 2.4 11 56 55.7	2441157 39.5 N 70.7 E 11 43 34.4 9137 F1	48 715 33. 33 71/07/24 244	94
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18 AND D GT 70
                      718 HINDU KUSH REGION
196 9362 PM 72 1 2 2441310 41.8 N 84.5 E 27 321 33. 33
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    352.0 10 40 38.8 10 27 30.4 9362 BM 72/01/02
    41.8 N 984.5 E 5.2
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352.0 10-40-38.8 10-27-30.4

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27 SOUTHERN
RSL IJGGUOD
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA
196 9362 F1 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33
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.3 352.0 10 40 38.8 10 27 30.4 9362 F1
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OSLIJGGUOO
SINKTANG TO KANSU
                     321 SOUTHERN SINKLANG PROV., CHINA
196 9362 F2 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33
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.3 352.0 10 40 38.8 10 27 30.4 9362 F2 72/01/02 244
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SINKIANG TO KAMSH
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                     321 SOUTHERN SINKIANG PROV., CHINA
SINKIANG TO KANSU
197 9365 BM 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33
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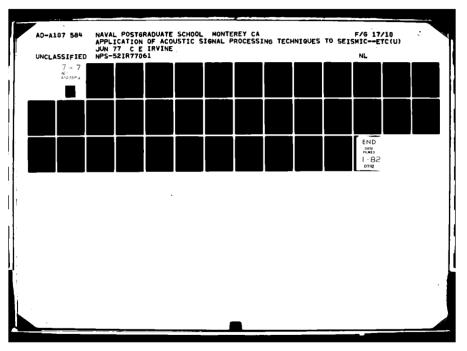
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G = 718 AND D GT 70
                           718 HINDU KUSH REGION
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  2441357 36.4 % 070.7 E 6.0
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.7 COMORZMOVE
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G = 718 AND D GT 70
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202 9463 F2 72 1 20 2441337 36.4 % 70.7 E 53 718213. 213
  97.2 2.5 11 49 30.3 11 36 2.7 9463 F2 72/01/20
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.7 CCMDRZMQVL
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.7 CCMDRZMOVL
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718 HINDU KUSH REGION

203 9479 BM 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33 15.0 265.3 10 44 12.5 10 40 37.4 9479 RM 72/01/23 4.8 43.5 N 127.0 N 2441340 10-40-37 265.3 10-44-12.5 33 15.0 .4 QLUPMZDGVH 3 CALI FORNIA - NEVADA PEGINN 30 OFF COAST OF OREGON 203 9479 F1 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33 15.0 265.3 10 44 12.5 10 40 37.4 9479 F1 72/01/23 2441340 43.5 N 127.0 W 4.8 10-44-12.5 10-40-37 **₹**3 15.0 265.3 3 CALI OLUPMZDGVH 30 OFF CHAST OF OREGON FORNTA - NEVADA REGION 203 9479 F2 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33 15.0 265.3 10 44 12.5 10 40 37.4 9479 F2 72/01/23 2441340 43.5 N 127.0 W 4.8 10-44-1 .5 10-40-37 15.0 265.3 33 .4 QLUPMZDGVH 3 CALT FORNTA - NEVADA REGION 30 OFF COAST OF DREGON 203 9479 F3 72 1 23 2441340 43.5 N-127.0 W 3 30 35. 33 15.0 265.3 10 44 12.5 10 40 37.4 9479 F3 72/01/23 2441340 43.5 N 127.0 N 4.8 10-40-37 33 265.3 10-44-12.5 15.0 .4 QLUPMZDGVH 3 CALT FORNIA - NEVADA REGION 30 OFF COAST OF OREGON 203 9479 F4 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33 15.0 265.3 10 44 12.5 10 40 37.4 9479 F4 72/01/23 4.8 2441340 43.5 N 127.0 N 10-40-37 10-44-12.5 33 15.0 265.3 GLUPMZDGVH 3 CALT 30 OFF COAST OF OREGON FORNTA - NEVADA REGION 204 9471 BM 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33 3.3 6 11 13.2 5 57 34.6 9471 BM 97.9 72/01/25 3.5 35.6 N 069.8 E 2441342 33 97.9 3.7 00-11-13.2 05-57-34 .6 TEQPYPDOFT 48 HIND U KUSH AND PAMIR 718 HINDU KUSH REGION 204 9471 F1 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33 3.3 6 11 13.2 5 57 34.6 9471 F1 72/01/25 97.9 2441342 35.6 N 069.8 E 3.5 7.3 06-11-13.2 05-57-34 33 97.9 48 HIND TLUPVROOFT H KUSH AND PAMTR 718 HINDU KUSH REGION 204 9471 F2 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33 3.3 6 11 13.2 5 57 34.6 9471 F2 72/01/25 97.9 069.8 E 3.5 2441342 35.6 N 33 97.9 3.3 00-11-13.2 05-57-54 48 HIND .b JEGPVRDOFT 718 HINDU KUSH REGION U KUSH AND PAMIR 294 9471 F3 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33 3.3 6 11 13.2 5 57 34.6 9471 F3 72/01/25

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.2 DOTHUSYMEL
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.2 DOTHUSYMBL
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.2 DATHUSYMBL
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FRN ASTA
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G = 718 AND D GT 70
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206 9706 F2 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212 97.2 2.6 1 27 57.0 1 14 21.4 9706 F2 72/02/22 36.4 N 070.6 E 2441370 5.3 97.2 01-27-57.0 01-14-21 212 2.6 .4 · DOOYZMZFQL 53 G RE 718 HINDU KUSH REGION G = 718 AND D GT 70206 9706 F3 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212 97.2 2.6 1 27 57.0 1 14 21.4 9706 F3 72/02/22 36.4 N 070.6 E 5.3 2441370 91.2 212 2.6 01-27-57.0 01-14-21 53 G RF DOOYZMZFQL . 4 718 HINDU KUSH REGION G = 718 AND D GT 70 206 9706 F4 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212 2.6 1 27 57.0 1 14 21.4 9706 F4 97.2 72/02/22 070.0 E 5.3 2441370 30.4 N 01-14-21 01-27-57.0 212 97.2 2.6 53 G RF .4 DOOYZMZFQL G = 718 AND D GT 70 718 HINDU KUSH REGION 207 9712 BM 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33 80.9 345.1 23 43 22.4 23 31 4.9 9712 RM 72/02/26 097.3 E 5.3 2441374 50.6 N P0.9 345.1 23-43-22.4 23-31-04 33 GRILGPEPER SR VEWY -ATA TO LAKE BAIKAL 333 USSR+MONGOLIA BORDER REGION 207 9712 F1 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33 80.9 345.1 23 43 22.4 23 31 4.9 9712 F1 72/02/26 2441374 50.6 N 097.3 E 5.3 A0.9 345.1 23-31-04 23-43-22.4 33 GRILDPEPER AMJA 85 -ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION 207 9712 F2 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33 80.9 345.1 23 43 22.4 23 31 4.9 9712 F2 72/02/26 5.3 2441374 50.6 N 097.3 E 23-31-04 PO.9 345.1 23-43-22,4 33 . O GRILGPEPFP S8 ALMA -ATA TO LAKE BAIKAL 333 USSR-MUNGOLIA BORDER REGION 207 9712 F3 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33 80.9 34521 23 43 22.4 23 31 4.9 9712 F3 72/02/26 097.3 E 5.3 2441374 50.6 N A0.9 345.1 23-43-22.4 23-31-04 GRILDPEPER 28 ALMA -ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION 207 9712 F4 72 2 26 2441374 50.6 N 97.3 E 24 333 33. 33 72/02/26 80.9 345.1 23 43 22.4 23 31 4.9 9712 F4 50.6 N 097.3 E 5.3 2441374 PO.9 345.1 23-43-22.4 33 23-31-04 .4 GRTLQPEPFP AMJA 85 333 USSR-MUNGOLIA BORDER REGION -ATA TO LAKE BATKAL 208 4790 RM 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130

95.3 359.8 18 37 21.8 18 23 54.6 9790 RM 72/03/04

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18-37-21.6 18-23-54 95.3 359.8 130 48 HIND KLQCRPZUTD - 0 719 TADZHIK-SINKIANG BORDER REG U KUSH AND PAMTR TON 208 9790 F1 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130 95.3 359.8 18 37 21.8 18 23 54.6 9790 F1 72/03/04 074.0 E 5.1 2441381 38.3 N 95.3 18-23-54 359.8 18-37-21.8 130 KLOCRPZUTD 48 HIND . 6 719 TADZHIK-SINKIANG BORDER REG II KUSH AND PAMIR ION 208 9790 F2 72 3 4 2441331 38.3 N 74.0 E 48 719130. 130 95.3 359.8 18 37 21.8 18 23 54.6 9790 F2 72/03/04 2441381 38.3 N 074.0 E 5.1 95.3 359.A 18-37-21.8 18-23-54 130 .6 KLOCRPZUTO 48 HIND 719 TADZHIK-SINKIANG BOPDER REG U KUSH AND PAMIR TON 208 9790 F3 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130 95.3 359.8 18 37 21.8 18 23 54.6 9790 F3 72/03/04 38.3 N 074.0 E 5.1 2441381 95.3 359.A 18-37-21.8 18-23-54 130 .6 KLACRPZUTD 48 HIND 719 TAD7HIK-SINKIANG RORDER REG U KUSH AND PAMIR TON 208 9790 F4 /2 3 4 2441381 38.3 N 74.0 E 48 719130. 130 359.8 18 37 21.8 18 23 54.6 9790 F4 72/03/04 95.3 ₹8.3 N 074.0 E 5.1 2441381 95.3 359.A 18-37-21.8 18-23-54 130 .o KLACRPZHITO 48 HIND 719 TADZHIK-SINKIANG BORDER REG U KUSH AND PAMIR TON 209 9729 RM 72 3 17 2401390 40.1 N 69.7 E 48 715 26. 26 93.4 3.1 9 30 25.4 9 17 6.7 9729 RM 72/03/17 40.1 M 069.7 E 5.2 2441394 26 93.4 09-30-25.4 09-17-06 3.1 .7 EUPKZOFLSB 48 HIND U KUSH AND PAMIR 715 TADZHIK SSR 200 9729 F1 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26 93.4 3.1 9 30 25.4 9 17 6.7 9729 F1 72/03/17 40.1 N 069.7 E 5.2 2441394 63.4 3.1 09-30-25.4 09-17-06 26 .7 EUPKZOFLSB 48 HIND 715 TADZHIK SSR U KUSH AND PAMIR 209 9729 F2 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26 3.1 9 30 25.4 9 17 6.7 9729 F2 72/03/17 93.4 40.1 % 069.7 £ 5.2 2441394 93.4 19-31-25.4 09-17-06 26 3.1 . 1 EHPKZOFLSP 48 HIND U KUSH AND PAMTR 715 TAD7HIK SSR 209 9729 F3 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26 93.4 3.1 9 30 25.4 9 17 6.7 9729 F3 72/03/17 2441394 40.1 N 069.7 E 5.2 09-17-06 09-30-25.4 93.4 3.1 .7 EUPKZOFLSA 48 HIND H KUSH AND PAMIR

715 TAD7HTK SSR

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209 9729 F4 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
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          40.1 N 069.7 E 5.2
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.7 EUPKZQFLSB
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210 9731 BM 72 3 20 2441397 51.3 N-179.7 W 1
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.4 TLCHCRJEQM
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210 9731 F1 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
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210 9731 F2 72 3 20 2441397 51.3 N-179.7 W 1
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  46.6 304.1 23 40 11.8 23 31 40.4 9731 F2
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  2441397 51.3 M 179.7 W 6.0
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210 9731 F3 72 3 20 2441397 51.3 N=179.7 W 1
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.4 TECHCRIFUM
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211 9742 BM 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
  97.5 .1 3 47 58.2 3 74 21.2 9742 BM 72/04/02
          30.1 N 073.6 E 5.0
  2441410
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.2 SOGRLHVISR
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.2 SAGRLHVISR
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.8 SULDYOGROZ
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.8 SULDYOQPOZ
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.3 CRIJSUOULF
                            332 NORTHERM SINKIANG PROV., CH
-ATA TO LAKE HATKAL
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213 9754 F1 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33

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.3 CBIJSUQULE
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-ATA TO LAKE BAIKAL
                           332 NORTHERN SINKIANG PROV., CH
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.3 CHIJSUQUEE
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-ATA TO LAKE BAIKAL
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.3 CBIJSUQULF
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-ATA TO LAKE BAIKAL
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.3 CRIJSUQULF
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-ATA TO LAKE BAIKAL
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.5 SOZMPETLYH
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-ATA TO LAKE BAIKAL
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214 9767 F1 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
  91.1 352.0 1 14 58.9 1 1 51.5 9767 F1
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214 9767 F2 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
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-ATA TO LAKE BAIKAL
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  91.1 352.0 1 14 58.9 1 1 51.5 9767 F3 72/04/20
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-ATA TO LAKE BAIKAL
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    SOZMPFILYH
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332 NORTHERN SINKIANG PROV., CH -ATA TO LAKE BAIKAL 215 9802 RM 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33 350.2 2 18 38.6 2 4 43.1 9802 BM 72/04/28 31.3 N 085.0 E 4.1 2441436 350.2 02-18-38.6 02-04-43 33 101.6 .1 ZGGRKTLRYT So INDI A - TIBET - SZECHWAN - YUNAN 306 TIBET 215 9802 F1 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33 101.6 350.2 2 18 38.6 2 4 43.1 9802 F1 2441436 31.3 N 085.0 E 4.1 02-04-43 101.6 350.2 02-18-38.6 33 ZGGOKTLBYT SP INDI A - TIBET - SZECHWAN - YUNAN 306 TIBET 215 9802 F2 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33 101.6 350.2 2 18 38.6 2 4 43.1 9802 F2 2441436 31.3 N 085.0 E 4.1 72/04/28 4.1 33 101.6 350.2 02-18-38.6 02-04-43 ZGGOKTLBYI Se INDI A - TIBET - SZECHWAN - YUNAN 306 TIBET 215 9802 F3 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33 101.6 350.2 2 18 38.6 2 4 43.1 9802 F3 72/04/28 2441436 31.3 N 085.0 E 4.1 02-04-43 33 101.6 350.2 02-18-38.6 .1 ZGGQKTLRYI 26 INDI A - TIBET - SZECHWAN - YUNAN 306 TIBET 215 9802 F4 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33 101.6 350.2 2 18 38.6 2 4 43.1 9802 F4 31.3 N 085.0 E 4.1 2441436 33 101.0 350.2 02-18-38.6 02-04-43 .1 ZGGQKTLBYT 26 INDI A - TIBET - SZECHNAN - YUNAN 306 TIBET 216 2010 RM 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35 67.9 310.6 17 28 31.0 17 17 28.7 2010 BM 66/12/07 2439467 43.6 N 149.6 E 6.2 67.9 17-28-31.0 17-17-28 35 310.6 19 JAPA DVUZUIMSLR N - KUPILES - KAMCHATKA 222 KURTLE ISLANDS REGION 216 2010 F1 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35 67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07 2439467 149.6 E 0.2 43.6 N 310.6 17-28-31.0 17-17-28 35 67.9 19 JAPA DVUZUIMSLQ N - KUPILES - KAMCHATKA 222 KURILE ISLANDS PEGION 216 2010 F2 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35 67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07 2439467 43.6 N 149.6 E 6.2 67.9 17-28-31.0 310.6 17-17-28 19 JAPA .7 DYUZUIMSLO M - KURILES - KAMCHATKA 272 KURILE TSLANDS REGION

216 2010 F3 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35 67.9 310.6 17 29 31.0 17 17 28.7 2010 BM 66/12/07

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2439467 43.6 N 149.6 E 6.2 17-28-31.0 17-17-28 67.9 310.6 35 .7 DVUZUIMSLO 19 JAPA 222 KURILF ISLANDS REGION N - KURILES - KAMCHATKA 216 2010 F4 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35 67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07 43.6 N 149.6 E 2439467 6.2 17-17-28 35 67.9 310.6 17-28-31.0 19 JAPA DVUZUIMSLO 222 KURILE ISLANDS REGION N - KURILES - KAMCHATKA 217 2029 8M 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33 61.7 312.7 8 38 12.9 8 27 50.5 2029 BM 67/10/07 2439771 49.1 N 154.4 E 5.8 312.7 08-38-12.9 08-27-50 33 61.7 HDMLHROPBO 19 JAPA N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 217 2029 F1 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33 61.7 312.7 8 38 12.9 8 27 50.5 2029 BM 67/10/07 2439771 49.1 N 154.4 E 5.8 33 61.7 312.7 08-38-12.9 08-27-50 HOMEHROPER 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 217 2029 F2 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33 61.7 312.7 8 38 12.9 8 27 50.5 2029 BM 67/10/07 2439771 49.1 N 154.4 E 5.8 08-38-12.9 08-27-50 33 61.7 312.7 HDMLHROPSO 19 JAPA N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 217 2029 F3 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33 61.7 312.7 8 38 12.9 8 27 50.5 2029 BM 2439771 49.1 N 154.4 E 5.8 33 61.7 312.7 08-38-12.9 08-27-50 HOMEHROPSO 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 217 2029 F4 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33 61.7 312.7 8 38 12.4 8 27 50.5 2029 BM 67/10/07 2439771 49.1 N 154.4 E 5.8 312.7 33 61.7 08-38-12.9 08-27-50 HDMLHRUPBO 19 JAPA M - KURILES - KAMCHATKA 221 KURILE ISLANDS 218 2030 RM 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42 63.7 312.7 16 41 18.8 16 30 43.0 2030 8M 67/11/01 47.8 N 152.2 E 5.8 2439796 42 63.7 312.7 16-30-43 16-41-18.8 MPPRQUEKLS 19 JAPA .0 M - KURILES - KAMCHATKA 221 KURILE ISLANDS 218 2030 F1 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01 47.8 N 152.2 E 5.8 2439796 63.7 312.7 16-41-18.8 16-30-43

19 JAPA

218 2030 F2 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 2439796 47.8 N 152.2 F 5.8 42 63.7 312.7 16-41-18.8 16-30-43 .0 MPPRQUCKLS 19 JAPA N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 218 2030 F3 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42 63.7 312.7 16 41 18.8 16 30 43.0 2030 BM 67/11/01 2439796 47.8 N 152.2 E 5.8 42 63.7 312.7 16-41-18.8 16-30-43 .0 MPPRQUCKLS 19 JAPA N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 218 2030 F4 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42 63.7 312.7 16 41 18.8 16 30 43.0 2030 BM 67/11/01 2439796 47.8 N 152.2 E 5.8 16-41-18.8 16-30-43 42 63.7 312.7 .0 MPPRGUCKLS 19 JAPA N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 219 2031 BM 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30 80.3 41.7 N 021.2 E 6.0 2439825 59 80.3 07-36-04.8 37.0 07-23-50 JRGPGCBLEY 31 WEST ERN MEDITERRANEAN AREA 383 YUGOSLAVIA 219 2031 F1 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30 41.7 N 021.2 E 6.0 2439825 07-36-04.8 07-23-50 29 P0.3 37.0 .2 JRQPGCBLEY 31 WEST ERN MEDITERRANFAN AREA 383 YUGOSLAVIA 219 2031 F2 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29 80.3 37.0 7 36 4.8 7 23 50.2 2031 BM 67/11/30 2439825 41.7 N 021.2 E 6.0 29 P U . 3 37.0 07-36-04.8 07-23-50 .2 JRGPGCHLLY 31 **%FST** FRN MEDITERRANFAN ARFA 3P3 YHGOSLAVIA

219 2031 F3 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29 80.3 37.0 7 36 4.8 7 23 50.2 2031 8M 67/11/30 2439825 41.7 N 021.2 E 6.0 29 80.3 37.0 07-36+04.8 07-23-50 2 IROPOGUSEY

.2 JROPGCBLEY
FRN MEDITERRANEAN AREA 383 YUGOSLAVIA

219 2031 F4 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29 80.3 37.0 7 36 4.8 7 23 50.2 2031 8M 67/11/30 2439825 41.7 N 021.2 E 6.0 29 80.3 37.0 07-36-04.8 07-23-50 31 WEST FRN MEDITERRANFAM AREA 383 YUGOSLAVIA

220 2035 8M 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23 2439848 48.2 N 156.7 E 5.7

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218 NEAR EAST COAST OF KAMCHATK

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HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH 230 2023 F2 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33 91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27 41.9 N 08448 E 5.3 23-28-28.0 23-15-20 33 91.2 351.8 .2 LYJPYRQYEP 27 SOUT HEH I STAKTANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH TNA 230 2023 F3 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33 91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27 2439608 41.9 N 084.8 E 5.3 23-15-20 91.2 351.8 23-28-28.0 .2 LYJPYRGYEP 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH INA 230 2023 F4 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33 91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27 2439608 41.9 N 084.8 E 5.3 91.2 33 351.A 23-28-28.0 23-15-20 .2 LYJPYRGYEP 27 SOUT HERN STAKLANG TO KANSU 321 SOUTHERM SINKLANG PROV., CH TNA 231 2025 BM 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33 93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27 39.9 N 077.3 E 5.1 2439638 33 93.6 357.3 01-56-03.0 01-42-43 .4 CLOODPWECK 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH INA 231 2025 F1 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33 93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27 2439638 39.9 N 077.3 E 5.1 95.6 357.3 01-56-03.0 01-42-43 33 .4 CLGODPWFCK 27 SOUT 321 SOUTHERN SINKTANG PROV., CH HERN SINKIANG TO KANSU TNA 2025 F2 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33 93.6 357.7 1 56 3.0 1 42 43.4 2025 BM 67/05/27 2439638 39.9 N 077.3 E 5.1 93.6 357.3 01-56-03.0 01-42-43 33 .4 CLGODPWSCK 27 SOUT HERN SINKLANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH $\Delta M T$ 231 2025 F3 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33 93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27 2439638 39.9 N 077.3 E 5.1 93.6 357.3 01-56-03.0 01-42-43 33 .4 CLOODPWECK 27 SOUT HERN STUKTANG TO KANSU 321 SOUTHERN SINKTANG PROV., CH TNA 231 2025 F4 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33 93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27 39.9 N 077.3 E 5.1 243963H **43** 45.6 357.3 01-56-03.0 01-42-43 27 SOUT .4 CLGODPWECK HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH TNA 232 2026 RM 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35 46.0 355.1 19 19 21.0 19 5 50.9 026 PM 67/05/27

2439638 37.4 N 079.9 E 5.4 19-05-50 0.00 355.1 19-19-21.0 35 .9 PCLKDAPEHT 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH INA 232 2026 F1 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35 96.0 355.1 19 19 21.0 19 5 50.9 2026 BM 67/05/27 37.4 N 079.9 E 5.4 2439638 96.0 355.1 19-19-21.0 19-05-50 35 .9 RCLKDQPEHI 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH INA 232 2026 F2 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 96.0 355.1 19 19 21.0 19 5 50.9 2026 BM 67/05/27 2439638 37.4 N 079.9 E 5.4 90.0 355.1 19-19-21-0 19-05-50 35 .9 RCLKDOPEHT 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH AMI 232 2026 F3 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35 96.0 355.1 19 19 21.0 19 5 50.9 2026 BM 67/05/27 37.4 N 079.9 E 5.4 2439638 35 96.0 19-05-50 355.1 19-19-21.0 .9 RCLKDOPEHI 27 SOUT HERN SINKIANG TO KANSU 321 SCUTHERN SINKIANG PROV., CH TNA 232 2026 F4 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35 96.0 355.1 19 19 21.0 19 5 50.9 2026 BM 67/05/27 2439638 37.4 N 079.9 E 5.4 96.0 355.1 19-19-21.0 19-05-50 35 .9 RCLKDOPFHT 27 SOUT HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH INA 233 2027 BM 67 6 7 2439649 46.8 N 155.0 E 19 221 35. 35 53.6 311.1 18 26 54.0 18 16 18.6 2027 AM 67/06/07 46.8 N 153.6 E 5.6 2439649 63.6 311.1 18-26-54.0 18-16-18 35 . DEGLTHEPKP 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 233 2027 F1 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07 2439649 46.8 N 153.6 E 5.0 311.1 18-26-54.0 18-16-18 63.6 JEGLTUFPKP 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 233 2027 F2 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07 46.8 N 153.6 E 5.6 2439649 35 63.6 311.1 18-26-54.0 18-16-18 .6 JEGLTUFPHP 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 233 2027 F3 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07 2439649 46.8 N 153.6 E 5.6 311.1 18-26-54.0 F3.6 18-16-18 .6 JEGLTUFPKP 19 JAPA N - KUPILES - KAMCHATKA 221 KURILE ISLANDS

233 2027 F4 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07 2439649 46.8 N 153.6 E 5.6 35 63.6 311.1 18-26-54.0 18-16-18 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 BM 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33 67.2 311.1 16 5 49.1 15 54 50.7 2028 BM 67/10/05 2439769 44.4 N 149.8 E 5.6 33 67.2 311.1 16-05-49.1 15-54-50 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F1 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33 67.2 311.1 16 5 49.1 15 54 50.7 2028 8M 67/10/05 2439769 44.4 N 149.8 E 5.6 33 67.2 311.1 16-05-49.1 15-54-50 19 JAPA

N - KURILES - HAMCHATKA 221 KURTLE ISLANDS

234 2028 F2 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33 67.2 311.1 16 5 49.1 15 54 50.7 2028 BM 67/10/05 2439769 44.4 N 149.8 E 5.6 33 67.2 311.1 16-05-49.1 15-54-50 19 JAPA

M - KUPILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F3 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33 67.2 311.1 16 5 49.1 15 54 50.7 2028 BM 67/10/05 2439769 44.4 N 149.8 E 5.6 33 67.2 311.1 16-05-49.1 15-54-50 7 MHMLOHIKHO 19 JAPA N - KUPILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F4 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33 67.2 311.1 16 5 49.1 15 54 50.7 2028 BM 67/10/05 2439769 44.4 N 149.8 E 5.6 33 67.2 311.1 16-05-49.1 15-54-50 19 JAPA

N - KURILES - MAMCHATKA 221 KURTLE ISLANDS

235 2032 RM 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33 55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14 2439839 54.3 N 160.0 E 5.4 33 55.8 315.1 18-34-53.0 18-25-11 4 HEQJETWISL 28 ALMA

.4 HEQUETANSL -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

-ATA TO LAKE BAIKAL

235 2032 F1 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33 55.8 315.1 18 34 53.0 18 25 11.4 2032 8M 67/12/14 2439839 54.3 N 160.0 E 5.4 33 55.8 315.1 18-34-53.0 18-25-11 4 HEGJFTWWSL 28 ALMA

235 2032 F2 67 12 14 2439P39 54.3 N 160.0 E 28 326 33. 33 55.8 315.1 18 34 53.0 18 25 11.4 2032 BM 67/12/14 2439839 54.3 N 160.0 E 5.4

326 CENTRAL RUSSIA

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33
                    55.8
                            315.1
                                    18-34-53.0
                                                 18-25-11
    HFOJFTWMSL
                                                  28 ALMA
-ATA TO LAKE BAIKAL
                            326 CENTRAL RUSSIA
235 2032 F3 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
         315.1 18 34 53.0 18 25 11.4 2032 BM
  55.8
                                                67/12/14
  2439839
           54.3 N
                   160.0 E 5.4
                                    18-34-53.0
                     55.8
                             315.1
                                                 18-25-11
               33
    HEOJFTWWSL
                                                  28 ALMA
-ATA TO LAKE BAIKAL
                            326 CENTRAL RUSSIA
235 2032 F4 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
                                               67/12/14
  55.8 315.1 18 34 53.0 18 25 11.4 2032 BM
 2439R39
         54.3 N 160.0 E 5.4
                     55.8
                             315.1
                                    18-34-53.0
                                                 18-25-11
               33
    HEQJETWWSL
                                                  28 ALMA
. 4
-ATA TO LAKE BAIKAL
                            326 CENTRAL RUSSIA
236 2033 BM 67 12 16 2439841 S1.0 N 157.4 E 19 218 45. 45
  59.0
         313.0 21
                  3 57.0 20 53 52.7 2033 RM
                                               67/12/16
                   157.4 E 5.9
  2439841
           51.0 N
                    59.0
                                    21-03-57.0
                             313.0
                                                 20-53-52
.7 ZRTEVDGLWU
                                                  19 JAPA
                       218 NEAR FAST COAST OF KAMCHATK
N - KUPILES - KAMCHATKA
236 2033 F1 67 12 16 2439841 F1.0 N 157.4 E 19 218 45. 45
  59.0 313.0 21 3 57.0 20 53 52.7 2033 RM
                                              67/12/16
  2439841
           51.0 N
                    157.4 E 5.9
                    59.0
                             313.0
                                    21-03-57.0
                                                 20-53-52
   ZRTEVDGLWH
. 7
                                                  19 JAPA
N - KURILES - KAMCHATKA
                       218 NEAR EAST COAST OF KAMCHATK
236 2033 F2 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
         313.0 21 3 57.0 20 53 52.7 2033 BM
  59.0
                                                67/12/16
                  157.4 E 5.9
 2439841
           51.0 N
                             313.0
                    59.0
                                    21-03-57.0
                                                 20-53-52
.7 ZRTEVDGLWU
                                                  19 JAPA
N - KURILES - KAMCHATKA
                       218 NEAR EAST COAST OF KAMCHATK
236 2033 F3 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
  59.0 313.0 21 3 57.0 20 53 52.7 2033 RM
                                                67/12/16
                  157.4 E
                             5.9
  2439841
           51.0 N
                    50.0
                                    21-03-57.0
                             313.0
                                                 20-53-52
               45
                                                  19 JAPA
.7 ZRTEVDGLWU
                            218 NEAR FAST COAST OF KAMCHATK
N - KUPILES - KAMCHATKA
236 2033 F4 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
         313.0 21 3 57.0 20 53 52.7 2033 BM
  59.0
                                                67/12/16
                   157.4 E 5.9
           51.0 N
  2439841
                    59.0
                                    21-03-57.0
                                                 20-53-52
               45
                             313.0
.7 ZRTEVDGLWU
                                                  19 JAPA
N - KURILES - KAMCHATKA
                            218 NEAR EAST COAST OF KAMCHATK
237 1009 BM 68 1 3 2439859 54.9 N 161.8 E 28 326 33. 33
  54.6 315.0 7 58 33.0 7 49 .6 1009 BM
  2439859
           54.9 N
                   161.8 E 5.0
               33
                     54.6
                             315.0
                                    07-58-33.0
                                                 07-49-00
   MMLOZSUPPS
                                                  SR ALMA
. 6
                           326 CENTRAL RUSSIA
-ATA TO LAKE BATKAL
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-ATA TO LAKE BAIKAL

237 1009 F2 6R 1
54.6 315.0 7 9
2439859 54.9 N
33
.6 MMLQZSOPPS
-ATA TO LAKE BAIKAL

237 1009 F3 6R 1
54.6 315.0 7 9
2439859 54.9 N
33
.6 MMLQZSOPPS
-ATA TO LAKE BAIKAL

237 1009 F4 6R 1
54.6 315.0 7 9
2439859 54.9 N
33
.6 MMLQZSOPPS
-ATA TO LAKE BAIKAL

237 1009 F4 6R 1
54.6 315.0 7 9
2439859 54.9 N
33
.6 MMLQZSOPPS
-ATA TO LAKE BAIKAL

xaa

237 1009 F1 68 1 3 2439859 54.9 N 161.8 E 28 326 33. 33 54.6 315.0 7 58 33.0 7 49 .6 1009 RM 68/01/03 2439859 54.9 N 161.8 E 5.0 33 54.6 315.0 07-58-33.0 07-49-00 6 MMLQZSOPPS 28 ALMA 326 CENTRAL PUSSIA

237 1009 F2 6R 1 3 2439R59 54.9 N 161.8 E 2R 326 33. 33 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03 2439R59 54.9 N 161.8 E 5.0 33 54.6 315.0 07-5R-33.0 07-49-00 .6 MMLQZSOPPS 28 ALMA -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

237 1009 F3 68 1 3 2439859 54.9 N 161.8 E 28 326 33. 33 54.6 315.0 7 58 33.0 7 49 .6 1009 8M 68/01/03 2439859 54.9 N 161.8 E 5.0 33 54.6 315.0 07-58-33.0 07-49-00 28 ALMA

326 CENTRAL RUSSIA

237 1009 F4 6F 1 3 2439859 54.9 N 161.8 E 2R 326 33. 33 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03 2439859 54.9 N 161.8 E 5.0 33 54.6 315.0 07-58-33.0 07-49-00 .6 MMLQZSGPPS 28 ALMA -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

238 1023 PM 68 1 6 2439862 45.7 N 25.5 E 52 358163. 163 78.6 32.2 10 35 37.8 10 23 32.7 1023 BM 68/01/06 2439862 45.7 N 025.5 E 4.8 163 78.6 32.2 10-35-37.8 10-23-32 .7 MQYCLJDJCT 52 G RE G = 358 AND D GT 70 358 RUMANIA

23R 1023 F1 68 1 6 2439862 45.7 N 25.5 E 52 358163. 163 78.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06 2439862 45.7 N 025.5 E 4.8 163 78.6 32.2 10-35-37.8 10-23-32.7 MQYCLJDICT 52 G REG = 358 AND D GI 70 358 RUMANIA

238 1023 F2 68 1 6 2439862 45.7 N 25.5 E 52 358163. 163
78.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
2439862 45.7 N 025.5 E 4.8
163 78.6 32.2 10-35-37.8 10-23-32
.7 MGYCLJUJCT 52 G RF
G = 358 AND D GT 70 358 RUMANIA

23R 1023 F3 6R 1 6 2439862 45.7 N 25.5 E 52 358163. 163
78.6 32.2 10 35 37.8 10 23 32.7 1023 8M 68/01/06
2439862 45.7 N 025.5 E 4.8
163 78.6 32.2 10-35-37.8 10-23-32
.7 MGYCLJDJCT 52 G RE
G = 358 AND D GT 70 358 RUMANIA

238 1023 F4 68 1 6 2439862 45.7 N 25.5 E 52 358163. 163 78.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06 2439862 45.7 N 025.5 E 4.8 163 78.6 32.2 10-35-37.8 10-23-32

9.0

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52 G RE
.7
  MGYCLJDJCT
G = 358 AND D GT 70
                           358 RUMANTA
239 1029 RM 68 1 9 2439865 50.0 N 155.5 E 19 221 48. 48
  60.6 313.0 5 58 4.7 5 47 49.4 1029 BM
                                               68/01/09
  2439865
           50.0 N
                  155.5 E 4.1
                                  05-58-04.7
                                                05-47-49
                            313.0
               48
                    60.5
                                                 19 JAPA
  TPYKKTKOLP
N - KURILES - KAMCHATKA
                           221 KURTLE ISLANDS
239 1029 F1 68 1 9 2439865 50.0 N 155.5 E 19 221 48. 48
  60.6 313.0 5 58 4.7 5 47 49.4 1029 PM
                                               68/01/09
           50.0 N 155.5 E
                             4.1
  2439865
                                                05-47-49
              48
                   60.6
                            313.0
                                    05-58-04.7
.4 IPYKKTKOLP
                                                 19 JAPA
                       221 KURILE ISLANDS
N - KURILES - KAMCHATKA
230 1020 F2 68 1 0 2439865 50.0 N 155.5 E 19 221 48. 48
  60.6 313.0 5 58 4.7 5 47 49.4 1029 PM
2439865 50.0 N 155.5 E 4.1
                                               68/01/09
                            313.0 05-5R-04.7
                                                05-47-49
               44
                    60.6
                                                 19 JAPA
*4 IBAKKIKUFD
N - KURILES - KAMCHATKA
                       221 KURTLE TSLANDS
239 1029 F3 68 1 9 2439865 50.0 N 155.5 E 19 221 48. 48
  60.6 313.0 5 58 4.7 5 47 49.4 1029 BM
                                               68/01/09
  2439865
           50.0 N 155.5 E 4.1
                                    05-58-04.7
                                                05-47-49
                            313.0
               48
                   60.6
                                                 19 JAPA
.4 IPYKKTKOLP
M - KURILES - KAMCHATKA
                           221 KURTLE ISLANDS
239 1029 F4 68 1 9 2439865 50.0 N 155.5 E 19 221 48. 48
   60.6 313.0 5 58 4.7 5 47 49.4 1029 BM
                                               68/01/09
  2439865 50.0 N 155.5 E 4.1
                           313.0 05-58-04.7
                                               05-47-49
              48
                   60.6
   IPYKKTKOLP
                                                 19 JAPA
N - KURILES - KAMCHATKA
                           221 KURILE ISLANDS
240 1036 RM 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 54
  60.6 312.0 15 21 16.6 15 11 1.1 1036 BM
                                               68/01/12
          49.3 N 156.3 E
                            4.6
  5439HPB
                                                15-11-01
                                    15-21-16.6
              54
                            312.0
                    60.0
   MLITYRCEMM
                                                 19 JAPA
                           221 KURTLE TSLANDS
N - KURILES - KAMCHATKA
240 1036 F1 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 54
  60.6 312.0 15 21 16.6 15 11 1.1 1036 RM
                                               68/01/12
  2439868 49.3 N 156.3 E 4.6
                                   15-21-16.6
                                                15-11-01
                    60.6
                            312.0
.1 MLITYRCEMM
                                                 19 JAPA
N - KURILES - KAMCHATKA
                           221 KURTLE ISLANDS
240 1036 F2 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 554
   60.6 312.0 15 21 16.6 15 11 1.1 1036 BM
                                               68/01/12
  243986A
           49.3 N
                    156.3 E
                             4.6
                                  15-21-16.6
                                                15-11-01
               54
                             312.0
                    40.6
   MLITYDCEMM
                                                 19 JAPA
M - KURILES - KAMCHATKA 221 KURILE ISLANDS
240 1036 F3 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 54
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. 3

ZJVKSDJAEL

312.0 15 21 16.6 15 11 1.1 1036 BM 68/01/12 60-6 49.3 N 156.3 E 4.6 2439868 15-21-16.6 15-11-01 60.0 5/1 312.0 .1 MLITYOCEMM 19 JAPA 221 KURTLE ISLANDS N - KURILES - KAMCHATKA 240 1036 F4 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 54 312.0 15 21 16.6 15 11 1.1 1036 BM 68/01/12 60.6 49.3 N 156.3 E 4.6 2439A6A 60.6 54 312.0 15-21-16.6 15-11-01 .1 MLITYDCEMM 19 JAPA 221 KURILE ISLANDS N - KUPILES - KAMCHATKA 241 1059 BM 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33 88.8 339.0 3 13 11.0 3 0 13.9 1059 PM 68/01/17 4.6 2439873 41.2 N 102.2 E 03-13-11.0 03-00-13 33 88.8 339.0 27 SOUT . 9 UKOWGLOPTE 323 NORTHERM CHINA HERN SINKIANG TO KANSU 1059 F1 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33 241 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17 41.2 N 102.2 E 4.6 2439873 P8.8 03-13-11.0 03-00-13 339.0 33 27 SOUT .9 UKOWGLGPTF 323 NORTHERM CHINA HERN SINKIANG TO KANSU 241 1059 F2 58 1 17 2439873 41.2 N 102.2 E 27 323 33. 33 88.8 339.0 13 11.0 3 0 13.9 1059 BM 68/01/17 2439873 41.2 N 102.2 E 4.6 339.0 03-13-11.0 03-00-13 33 PB.B .9 UKOWGLQPIE 27 SOUT HERN SINKIANG TO KANSU 323 NORTHERN CHINA 241 1059 F3 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33 68/01/17 BR.R 339.0 3 13 11.0 3 0 13.9 1059 BM 41.2 N 102.2 E 4.6 2439873 03-00-13 330.0 03-13-11.0 33 88.8 27 SOUT .9 UKUWGLGPIE 323 NORTHERN CHINA HERN SINKIANG TO KANSU 241 1059 F4 68 1 17 243987 41.2 N 102.2 E 27 323 33. 33 88.8 330.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17 2439873 41.2 N 102.2 E 4.6 03-00-13 33 88.3 330.0 03-13-11.0 UKOWGLGPTE 77 SOUT HEPN SINKLANG TO KANSU 323 NORTHERN CHINA 242 1070 BM 68 1 19 2439875 79.6 4 132.0 E 40 654 24. 24 40.6 348.3 7 8 36.0 6 59 41.3 1070 RM 68/01/19 132.0 E 4.5 2439875 79.6 N 06-59-41 24 49.0 348.3 07-08-30.0 .3 ZJVKSDJREL 40 ARCT 654 EAST OF SEVERNAYA ZEMLYA IC ZONE 242 1070 F1 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24 49.6 348.7 7 8 36.0 6 59 41.3 1070 RM 68/01/19 132.0 E 4.5 2439875 79.6 N 49.6 348.3 07-08-36.0 06-59-41 24

40 APCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F2 6R 1 19 2439875 79.6 N 132.0 E 40 654 24. 24 49.6 348.3 7 R 36.0 6 59 41.3 1070 PM 68/01/19 2439875 79.6 N 132.0 E 4.5

24 49.6 348.3 07-08-36.0 06-59-41 .3 ZJVKSDJOEL 40 ARCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F3 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24 49.6 348.3 7 8 36.0 6 59 41.3 1070 RM 68/01/19 2439875 79.6 N 132.0 E 4.5 24 49.6 348.3 07-08-36.0 06-59-41

.3 ZJVKSDJOEL 49.6 548.5 07-08-38.0 08-39-41
LC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F4 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24 49.6 348.3 7 8 36.0 6 59 41.3 1070 8M 68/01/19 2439875 79.6 N 132.0 E 4.5

24 49.6 348.3 07-08-36.0 06-59-41 .3 ZJVKSDJOEL 40 ARCT TC ZONE 654 E4ST OF SEVERNAYA ZEMIYA

243 1073 RM 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19 2439875 44.8 N 148.4 E 4.7

33 67.7 312.2 16-15-58.0 16-04-57
.1 BRSFPVFVLO 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

243 1073 F1 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33 67.7 312.2 16 15 58.0 16 4 57.1 1073 BM 68/01/19 2439875 44.8 N 148.4 E 4.7 33 67.7 312.2 16-15-58.0 16-04-57

33 67.7 312.2 16-15-58.0 16-04-57
.1 BRSFPVFVLG 19 JAPA
N - KUPILES - KAMCHATKA 221 KUPILE ISLANDS

243 1073 F2 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19 2439875 44.8 N 148.4 E 4.7

33 67.7 312.2 16-15-58.0 16-04-57
.1 GRSFPVFVLQ 19 JAPA
N - KURILES - KAMCHATKA 221 KURTLE ISLANDS

243 1073 F3 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19 2439875 44.8 N 148.4 E 4.7

33 67.7 312.2 16-15-58.0 16-04-57 .1 BRSFPVFVLG 19 JAPA N - KURILES - KAMCHATKA 221 KURILE TSLANDS

243 1073 F4 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33 67.7 312.2 16 15 58.0 16 4 57.1 1073 BM 68/01/19 2439875 44.8 N 148.4 E 4.7

33 67.7 312.2 16-15-58.0 16-04-57 .1 BRSFPVFVLO 19 JAPA

M - KURILES - KAMCHATKA 221 KURILE TSLANDS

244 1088 HM 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33 93.7 21.0 20 47 38.4 20 34 18.7 1088 BM 68/01/22

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2439878
           36.6 N
                    047.3 E
                              4.8
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                     93.7
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.7 FRUQSJIGYL
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244 1088 F1 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
  93.7
          21.0 20 47 38.4 20 34 18.7 1088 BM
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  2439878
           36.6 N 0/17.3 E 4.8
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                                    20-47-38-4
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                            345 NORTHWESTERN TRAN
244 1088 F2 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
          21.0 20 47 38.4 20 34 18.7 1088 BM
  93.7
                                                68/01/22
  2439878
           36.6 N 047.3 E
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.7 FRUNSJIGYL
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FRN ASTA
                            345 NORTHWESTERN IRAN
244 1088 F3 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
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    FPURSJIRYL
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ERM ASIA
                            345 NORTHWESTERN IRAN
244 1088 F4 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
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          21.0020 47 38.4 20 34 18.7 1088 9M
                                              68/01/22
           30.6 N 047.3 E
  2439878
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.7 FRUNSJIGYL
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FRN ASTA
                            345 NORTHWESTERN IRAN
245 1111 8M 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
          2.0 5 13 20.4 4 59 55.6 1111 PM
  94.9
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           38.8 N 071.2 E
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                                    05-13-20-4
                                                 04-59-55
    IGKTGSJILH
. 6
                                                  48 HIND
H KHSH AND PAMIR
                            717 AFGHANISTAN-USSR BORDER REG
104
245 1111 F1 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
          2.0 5 13 20.4 4 59 55.6 1111 8M
  94.8
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.6 IOKTGSJILH
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U KUSH AND PAMIR
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245 1111 F2 08 1 29 2439885 38.8 N 71.2 E 48 717225. 225
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  94.8
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  2439885
           38.8 N 071.2 E 5.7
                                    05-13-20.4
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   IGKTGSJILH
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U KUSH AND PAMIR
                            717 AFGHANISTAN-USSR BORDER REG
TON
245 1111 F3 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
          2.0 5 13 20.4 4 59 55.6 1111 RM
  94.8
                                                68/01/29
           38.8 N 071.2 E 5.7
  2439885
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                    01.8
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                                                 04-59-55
.6 IQKTGSJTLH
                                                  48 HIND
H KUSH AND PAMTR
                           717 AFGHAMISTAN+USSR BORDER REG
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TUN 245 1111 F4 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225 2.0 5 13 20.4 4 59 55.6 1111 BM 94.8 5.7 2439885 38.8 N 071.2 E 2.0 94.8 05-13-20.4 04-59-55 225 .6 IOKTGSJILH 48 HIND II KUSH AND PAMIR 717 AFGHANISTAN-USSP BORDER REG 246 1113 BM 68 1 29 2439885 43.3 N 145.2 E 19 224 40. 40 70.3 312.8 10 30 11.0 10 18 53.6 1113 BM 2439885 43.3 N 145.2 E 6.3 312.8 40 70.3 10-30-11.0 10-18-53 TVPLZCKGCD 19 JAPA N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 246 1113 F1 68 1 29 2439885 43.3 N 145.2 E 19 224 40. 40 70.3 312.8 10 30 11.0 10 18 53.6 1113 BM 2439885 43.3 N 145.2 E 6.3 40 70.3 312.R 10-30-11.0 10-18-53 TVPLZCKOCD 19 JAPA . 0 M - KUPILES - KAMCHATKA 224 HOKKATDO, JAPAN, REGION 246 1113 F2 68 1 29 2439885 43.3 N 145.2 E 19 224 40. 40 70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29 2439885 43.3 N 145.2 E b.3 312.8 40 70.3 10-30-11.0 10-18-53 .6 TVPLZCKQCD 19 JAPA M = KURILES = KAMCHATKA 224 HOKKAIDO, JAPAN, PEGION 246 1113 F3 68 1 29 2439885 43.3 N 145.2 E 19 224 40. 40 70.3 312.8 10 30 11.0 10 18 53.6 1113 BM 68/01/29 43.3 11 145.2 € 6.3 2439885 40 70.3 312.8 10-30-11.0 10-18-53 TVPLZCKOCD 19 JAPA . 0 M - KUPILES - KAMCHATKA 224 HOKKAIDO, JAPAN, PEGION 246 1113 F4 68 1 29 2439885 43.3 N 145.2 E 19 224 40. 40 70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29 2439885 43.3 N 145.2 E 5.3 312.8 40 70.3 10-30-11.0 10-18-53 TVPLZCKOCD 19 JAPA N - KUPILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 247 1201 BM 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 6 55 10.6 6 45 37.6 1201 BM 68/02/06 2439893 55.8 N 160.5 E 4.8 54.7 06-55-10.6 06-45-37 33 316.4 .6 CWYELAKIOT 19 3484 M - KURILES - KAMCHATKA 217 KAMCHATKA 247 1201 F1 58 2 6 2439893 55.8 N 160.0 E 19 217 33. 33 54.7 316.4 6 55 10.6 6 45 37.6 1201 BM 48/05/06 2439893 55.8 N 160.6 E 4.8 54.7 00-55-10.6 33 316.4

33 54.7 316.4 00-55-10.6 06-45-37
.6 CWYFLGKIOT 19 JAPA
N - KURILES - KAMCHATKA 217 KAMCHATKA

247 1201 F2 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06 2439893 55.8 N 160.6 E 4.8

54.7 316.4 06-55-10.6 06-45-37 33 .6 CWYELOKIOI 19 JAPA N - KURILES - KAMEHATKA 217 KAMCHATKA 247 1201 F3 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 6 55 10.6 6 45 37.6 1201 AM 68/02/06 55.8 N 160.n E 4.8 2439893 33 54.7 316.4 06-55-10.6 06-45-37 CWYELOKIDI 19 JAPA N - KUPILES - KAMCHATKA 217 KAMCHATKA 247 1201 F4 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 6 55 10.6 6 45 37.6 1201 8M 68/02/06 2439893 55.8 N 160.6 E 4.8 54.7 316.4 06-55-10.6 06-45-37 33 .6 CWYFLRKIOT 19 JAPA N - KURILES - KAMCHATKA 217 KAMCHATKA 248 1104 8% 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15 91.9 1.6 2 35 10.5 2 21 59.2 1104 RM 68/01/27 2439883 41.7 N 071.7 E 4.8 15 91.9 1.5 02-35-10.6 02-21-59 .2 IDBHHGLYMC 48 HIND 716 KTRGIT SSR H KUSH AND PAMIR 248 1104 F1 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15 91.9 1.6 2 35 10.5 2 21 59.2 1104 8M 68/01/27 2439883 41.7 N 071.7 E 4.8 15 91.9 1.6 02-35-10.6 02-21-59 .2 IDBHHQLYMC 48 HIND 716 KTPGI7 SSP H KUSH AND PAMIR 248 1104 F2 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15 91.9 1.6 2 35 10.6 2 21 59.2 1104 BM 68/01/27 2439983 41.7 N U71.7 E 4.8 91.9 1.6 02-35-10.6 02-21-59 .2 IDBHHGLYMC 48 HIND II KUSH AND PAMTR 716 KIRGIZ SSR 248 1104 F3 68 1 27 2439883 41.7 1 71.7 E 48 716 15. 15 91.0 1.6 2 35 10.6 2 21 59.2 1104 BM 68/01/27 2439883 41.7 N 071.7 E 4.8 91.9 1.6 02-35-10.6 02-21-59 15 .S IDBHHGLYMC 48 HIND 716 KTRGIZ SSR U KUSH AND PAMIR 248 1104 F4 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15 1.6 2 35 10.6 2 21 59.2 1104 BM 68/01/27 91.9 41.7 N 071.7 E 4.8 91.9 15 1.6 02-35-10.6 02-21-59 .S IDBHHULYMC 48 HIND H KUSH AND PAMIR 716 KTRGIZ SSR 249 1114 RM 68 1 29 2439885 41.8 N 144.9 F 19 224 33. 33 71.6 311.9 1J 53 14.0 10 41 48.5 1114 BM 68/01/29 2439885 41.8 N 144.9 E 5.2 311.9 10-53-14.0 71.6 10-41-48 VBHEKSIJI Y'V 19 JAPA

M - FURILES - KAMCHATKA 224 HOKKATOO, JAPAN, REGION

249 1114 F1 68 1 29 2439885 41.8 N 144.9 E 19 224 33. 33 71.6 311.9 10 53 14.0 10 41 48.5 1114 8M 68/01/29 24348AS 41.8 N 144.9 E 5.2 10-41-48 311.9 10-53-14.0 71.6 33 19 JAPA .5 VBHFKSULYW 224 HOKKAIDO, JAPAN, REGION N - KURTLES - KAMCHATKA 249 1114 F2 68 1 29 2439885 41.8 N 144.9 E 19 224 35. 33 71.6 311.9 10 53 14.0 10 01 48.5 1114 BM 68/01/29 2439885 41.8 N 144.9 E 5.2 10-41-48 311.9 10-53-14-0 33 71.6 19 JAPA .5 VBHFKSQLYW 224 HOKKAIDO, JAPAN, REGION N - KURILES - KAMCHATKA 249 1114 F3 68 1 29 2439885 41.8 N 144.9 E 19 224 33. 33 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29 5.2 2439885 41.8 N 144.9 E 10-41-48 311.9 10-53-14-0 71.6 33 19 JAPA .5 VAHEKSULY'M 224 HOKKATOO, JAPAN, REGION N - KURILES - KAMCHATKA 749 1114 F4 68 1 29 2439885 41.8 N 144.9 E 19 724 33. 33 71.6 311.9 10 53 14.0 10 41 48.5 1114 BM 68/01/29 5.2 2439885 41.8 N 144.9 E 10-41-48 311.9 10-53-14-0 33 71.6 19 JAPA .5 VAHEKSGLYN 224 HOKKATON, JAPAN, REGION N - KURILES - KAMCHATKA 250 1117 RM 68 1 29 2439865 44.3 N 146.7 E 19 221 33. 33 68.9 312.7 11 47 41.9 11 36 33.7 1117 9M 2439885 44.3 N 140.7 E 4.0 68/01/29 312.7 11-47-41.9 11-30-33 33 68.9 19 JAPA .7 GBSGHLDPUG 221 KURILE ISLANDS N - KURILES - MAMCHATKA 250 1117 F1 68 1 29 2439885 44.3 N 146.7 E 19 221 33. 33 68/01/29 p8.9 312.7 11 47 41.9 11 36 33.7 1117 BM 44.3 % 146.7 E 4.6 2439AA5 11-47-41-9 11-30-33 73 312.7 68.9 19 JAPA GREGHLDPUG N - KURILES - KAMCHATKA 221 KURTLE ISLANDS 250 1117 F2 BR 1 29 2439885 MJ.3 N 146.7 E 19 221 33. 33 6A.0 312.7 11 47 41.9 11 35 33.7 1117 BM 68/01/29 2439885 44.3 N 146.7 E 4.0 65.9 317.7 11-47-41.9 11-36-33 33 .7 OBSGHLUPUG 19 JAPA 221 KURTLE ISLANDS N - KURILES - KAMCHATKA 250 1117 F3 68 1 29 2439885 44.3 N 146.7 E 19 221 33. 33 68.9 312.7 !1 47 41.9 !! 36 33.7 1117 BM 68/01/29 2439885 44.3 N 146.7 E 4.6

250 1117 F4 68 1 29 2439848 44.3 N 146.7 E 19 221 33. 33 68.9 312.7 11 47 41.9 11 36 33.7 1117 8M 68/01/29 2439885 44.3 N 146.7 E 4.6 312.7 11-47-41.9 11-36-33

312.7

221 KHRILF ISLANDS

68.9

33

JHSBHLDDUG

N - KURTLES - KAMCHATKA

11-47-41.9

11-36-33

19 JAPA

.7 GASGHLDPUG N - KUPILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 BM 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33 69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29 146.2 E 5.5 2439885 44.0 N 69.3 312.8 11-55-04-0 11-43-52. 33 19 JAPAN

19 JAPA

19 JAPA

19 JAPA

9 DEHC7SHLDU 221 KUPILE ISLANDS - KURILES - KAMCHATKA

251 1118 F1 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33 69.3 312.8 11 55 4.0 11 43 52.9 1118 RM 68/01/29 2439885 44.0 N 146.2 E 5.5 312.8 11-55-04.0 33 69.3 11-43-52

.9 OEHCZSHLD9 221 KURTLE TSLANDS N - KURILES - KAMCHATKA

251 1118 F2 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33 69.3 312.8 11 55 4.0 11 43 52.9 1118 PM 68/01/29 2439885 44.0 1 146.2 E 5.5 312.8 33 69.3 11-55-04.0 11-43-52

.9 OEHCZSHLDO 19 JAPA 221 KURTLE TSLANDS N - KURILES - KAMCHATKA

251 1118 F3 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33 69.3 312.8 11 55 4.0 1! 43 52.9 1118 BM 68/01/29 2439885 44.0 N 146.2 E 5.5 312.8 11-55-04.0 11-43-52

33 69.3 19 JAPA .9 DEHCZSHLDO N - KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 F4 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33 69.3 312.9 11 55 4.0 11 43 52.9 1118 RM 68/01/29 2439885 44.0 N 146.2 E 5.5 33 69.3 312.8 11-55-04.0 11-43-52

.9 OEHCZSHLDQ N - KURILES - KAMCHATKA 221 KURTLE ISLANDS

252 1119 RM 69 1 29 2439885 42.6 N 147.3 E 19 225 33. 33 69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29 2439885 42.6 V 147.3 E 4.9

33 69.8 311.1 12-18-14.0 12-07-00 RICTIVMORL 19 JAPA N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA

252 1119 F1 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33 69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29 42.6 N 147.3 E 4.9 2439A45

311.1 69.8 12-18-14.0 12-07-00 33 .3 RICIIVMORL 19 JAPA N - KURILES - KAMCHATKA 225 OFF CHAST OF HOKKAIDO, JAPA

252 1119 F2 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33 59.8 311.1 12 19 14.0 12 7 .3 1119 BM 68/01/29 2439885 42.5 N 147.3 E 4.9 24398H5

311.1 12-18-14.0 33 69.8 12-07-00 .3 RICIIVMORU 19 JAPA M - KURILES - KAMCHATKA 225 UFF COAST OF HOKKAIDO, JAPA

33

252 1119 F3 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33 69.8 311.1 12 18 14.0 12 7 3 1119 BM 68/01/29 4.9 2439885 42.6 N 147.3 E 33 69.8 311.1 12-18-14.0 12-07-00 RICIIVMORL 19 JAPA N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA 252 1119 F4 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33 69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29 42.6 N 147.3 E 4.9 2439885 69.8 311.1 12-18-14.0 12-07-00 33 .3 RICIIVMORI 19 JAPA N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA 253 1132 RM 68 1 29 2439885 43.3 N 145.2 E 19 224 33. 33 70.3 312.8 17 25 11.0 17 13 53.6 1132 8M 68/01/29 2439885 43.3 N 145.2 E 4.7 312.8 17-25-11.0 17-13-53 33 70.3 DQURJKRUJL 19 JAPA N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 253 1132 F1 68 1 29 2439885 43.3 N 145.2 E 19 224 33. 33 312.8 17 25 11.0 17 13 53.6 1132 BM 70.3 68/01/29 2439885 43.3 N 145.2 E 4.7 70.3 312.8 17-25-11-0 17-13-53 DQURJKRUJL 19 JAPA N - KUPILES - KAMCHATKA 224 HOKKATOO, JAPAN, REGION 253 1132 F2 68 1 29 2439885 43.3 N 145.2 E 19 224 33. 33 70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29 2439885 43.3 N 145.2 E 4.7 33 70.3 312.8 17-25-11.0 17-13-53 DOURJKRUJL 19 JAPA M - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 253 1132 F3 68 1 29 2439885 13.3 N 145.2 E 19 224 33. 33 70.3 312.8 17 25 11.0 17 13 53.6 1132 RM 68/01/29 2439885 43.3 N 145.2 E 4.7 70.3 312.A 17-25-11.0 33 17-13-53 19 JAPA DUNBAKSHAF M - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION 253 1132 F4 68 1 29 2439885 43.3 N 145.2 E 19 224 33. 33 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29 70.3 2439885 43.3 N 145.2 E 4.7 33 70.3 312.8 17-25-11.0 17-13-53 DOURJKRUJL 19 JAPA N - KURILES - KAMCHATKA 224 HOKKATON, JAPAN, REGION 254 1131 BM 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33 70.5 312.0 to 53 55.0 to 42 36.6 1131 BM 68/01/29 2439885 42.7 N 145.8 E 6.0 33 70.5 312.0 16-53-55.0 16-42-36 EGOOML TRDW 19 JAPA N - KURILES - KAMCHATKA 224 HOKKATOO, JAPAN, REGION 254 1131 F1 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33 70.5 312.0 to 53 55.0 th 42 36.6 1131 BM 68/01/29 2439885 42.7 h 145.8 E 6.0 70.5

312.0 16-53-55.0 16-42-36

.6 EGOGMLTROW 19 JAPA N - KURILES - KAMCHATKA 224 HOKKATOO, JAPAN, REGION

254 1131 F2 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33 70.5 312.0 16 53 55.0 16 42 36.6 1131 BM 68/01/29 2439885 42.7 N 145.8 E 6.0 33 70.5 312.0 16-53-55.0 16-42-36

.6 EGOGMETRON 19 JAPA

N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

254 1131 F3 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33 70.5 312.0 16 53 55.0 16 42 36.6 1131 BM 68/01/29 2439885 42.7 N 145.8 E 6.0

33 70.5 312.0 16-53-55.0 16-42-36 .6 EGOOMLTRDW 19 JAPA N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, PEGION

254 1131 F4 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33 70.5 312.0 16 53 55.0 16 42 36.6 1131 BM 68/01/29 2439885 42.7 N 145.8 E 6.0

33 70.5 312.0 16-53-55.0 16-42-36 .6 EGOQMLTRDW 19 JAPA N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 8M 68 1 29 2439885 44.3 M 145.4 E 19 224 33. 33 69.5 313.4 16 15 19.0 16 4 6.8 1130 8M 68/01/29 2439885 44.3 N 145.4 E 4.6

33 69.5 313.4 16-15-19.0 16-04-06
.8 VCKRKJZOLV 19 JAPA
N - KUPILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F1 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33 69.5 313.4 16 15 19.0 16 4 6.8 1130 BM 68/01/29 2439885 44.3 N 145.4 E 4.6

33 69.5 313.4 10-15-19.0 16-04-06
.8 VCKRKJZOLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKATDO, JAPAN, REGION

255 1130 F2 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33 69.5 313.4 16 15 19.0 16 4 6.8 1130 BM 68/01/29 2439885 44.3 N 145.4 E 4.6

33 69.5 313.4 16-15-19.0 16-04-06
.8 VCKHKJZOLV 19 JAPA
N - KUPILES - KAMCHATKA 224 HOKKATDO, JAPAN, PEGION

255 1130 F3 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33 69.5 313.4 to 15 19.0 16 4 6.8 1130 RM 68/01/29 2439885 44.3 N 145.4 E 4.6

33 69.5 313.4 16-15-19.0 16-04-06
.8 VCKRKJZOLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F4 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33 69.5 313.4 16 15 19.0 16 4 6.8 1130 BM 68/01/29 2439885 44.3 N 145.4 E 4.6

33 69.5 313.4 16-15-19.0 16-04-06
.8 VCKRKJZOLV 19 JAPA
N - KUPILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

256 1159 BM 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205

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2.6 8 30 45.1 9 17 7.9 1159 BM 97.6 68/01/30 36.0 N 070.6 E 5.4 2439886 08-30-45.1 08-17-07 205 97.6 2.6 IZLORIBCEF 53 G RF 718 HINDU KUSH REGION G = 718 AND D GT 70256 1159 F1 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205 97.6 2.6 8 30 45.1 8 17 7.9 1159 BM 68/01/30 36.0 N 070.6 E 5.4 2439RB6 97.6 08-30-45.1 08-17-07 205 2.6 .9 IZLORIBCEF 53 G RE G = 718 AND D GT 70 718 HINDU KUSH REGION 256 1159 F2 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205 97.6 2.6 8 30 45.1 8 17 7.9 1159 BM 68/01/30 30.0 N 070.6 E 5.4 2439886 97.6 08-30-45.1 08-17-07 205 2.6 53 G RE .9 IZLORIBCEF G = 718 AND D GT 70 718 HINDU KUSH REGION 256 1159 F3 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205 97.6 2.6 8 30 45.1 8 17 7.9 1159 BM 36.0 N 070.6 E 5.4 2439886 205 91.6 2.6 08-30-45.1 08-17-07 IZLGRIBCEF 53 G RE G = 719 AND D GT 70 718 HINDU KUSH PEGION 256 1159 F4 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205 97.6 2.6 8 30 45.1 R 17 7.9 1159 RM 68/01/30 2439886 36.0 N 070.6 E 5.4 205 97.6 2.6 08-30-45.1 08-17-07 .9 IZLORIBCEF 53 G RE G = 718 AND D GT 70718 HINDU KUSH REGION 257 1141 8M 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33 08.5 312.0 1 41 23.0 1 30 17.0 1141 BM 68/01/30 44.1 N 147.7 E 5.0 2439886 312.0 01-41-23.0 68.5 01-30-17 33 RZBILOFSSS 19 JAPA M - KURILES - KAMCHATKA 221 KURILE ISLANDS 257 1141 F1 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33 68.5 312.0 1 41 23.0 1 30 17.0 1141 BM 68/01/30 2439886 44.1 N 147.7 E 5.0 01-30-17 33 68.5 312.0 01-41-23.0 .0 RZBILGESSS 19 JAPA 221 KURILE ISLANDS N - KUPILES - KAMCHATKA 257 1141 F2 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33 68.5 312.0 1 41 23.0 1 30 17.0 1141 RM 68//1/30 44.1 N 147.7 E 5.0 33 68.5 312.0 2439886 01-41-23.0 01-30-17 RZHILOFSSS 19 JAPA N - KUPILES - KAMCHATKA 221 KURTLE ISLANDS 257 1141 F3 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33 68.5 312.0 1 41 23.0 1 30 17.0 1141 BM 68/01/30 44.1 N 147.7 E 5.0 2439886 33 312.0 01-41-23.0 01-30-17

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N - KURILES - KAMCHATKA 221 KURILE ISLANDS 257 1141 F4 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33 68.5 317.0 1 41 23.0 1 30 17.0 1141 BM 68/01/30 2439886 44.1 N 147.7 E 5.0 312.0 68.5 01-41-23.0 01-30-17 33 RZBILGESSS 19 JAPA N - KURILES - KAMCHATKA 221 KURILE ISLANDS 258 1205 BM 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06 2439893 55.8 N 160.6 E 4.2 54.7 316.4 33 10-40-00.3 10-30-27 .3 MGDKGCLRRZ 19 JAPA N - KUPILES - KAMCHATKA 217 KAMCHATKA 258 1205 F1 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06 2439893 55.8 N 160.6 E 4.2 54.7 33 316.4 10-40-00.3 10-30-27 .3 MGDKGCLOR7 19 JAPA N - KUPILES - KAMCHATKA 217 KAMCHATKA 258 1205 F2 08 2 6 2439893 55.8 N 160.6 E 19 217 33. 53 54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06 55.8 N 160.6 E 4.2 54.7 33 316.4 10-40-00.3 10-30-27 .3 MGDKGCLQR7 19 JAPA N - KURILES - KAMCHATKA 217 KAMCHATKA 258 1205 F3 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06 2439893 55.8 N 160.6 E 4.2 54.7 316.4 10-40-00.3 33 10-30-27 MGDKGCLORZ 19 JAPA N - KUPILES - KAMCHATKA 217 KAMCHATKA 258 1205 F4 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33 54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06 55.8 N 160.6 E 4.2 **73** 54.7 316.4 10-40-00.3 10-30-27 .3 MGDKGCLQRZ 19 JAPA N - KUPILES - KAMCHATKA 217 KAMCHATKA 259 1207 AM 68 2 7 2439894 43.3 N 85.8 E 28 332 33. 33 89.7 351.3 1 35 50.2 1 22 54.9 1207 8M 68/02/07 2439894 43.3 N 085.8 E 4.2 89.7 351.3 01-35-56.2 33 01-22-54 KIJOILIGZR 28 ALMA 332 NORTHERN SINKIANG PROV., CH -ATA TO LAKE BAIKAL INA 259 1207 F1 68 2 7 2439894 43.3 N 85.8 E 28 332 33. 33 89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07 2439894 43.3 N 085.8 E 4.2 84.7 351.3 01-35-56.2 01-22-54 .9 KIJOILIGZP 28 ALMA -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH

259 1207 F2 6F 2 7 2439894 43.3 N 85.8 E 2R 332 33. 33 89.7 351.3 1 35 56.2 1 22 54.9 1207 RM 68/02/07

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31 WEST

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262 1224 F3 68 2 22 2439909 41.0 N 20.4 E 31 391 33. 33 37.9 12 46 22.9 12 34 7.1 1224 BM 30.6 68/05/55 2439900 41.0 N 020.4 E 4.1 80.0 33 37.9 12-46-22.9 12-34-07 .1 MVMHMRQWLJ 31 WFST FRM MEDITERRANEAN AREA 391 ALBANTA

262 1224 F4 68 2 22 2439909 41.0 N 20.4 E 31 391 33. 33 80.6 37.9 12 45 22.9 12 34 7.1 1224 BM 68/02/22 41.0 N 020.4 E 2439909 4.1

37.9 12-46-22.9 12-34-07 33 60.0 31 WEST MYMHMRQWLJ 391 ALBANIA ERN MEDITERRAHEAN AREA 263 1223 BM 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33 80.9 38.0 12 34 58.2 12 22 40.7 1223 BM 2439909 40.7 N 020.0 E 4.4 38.0 12-34-58.2 12-22-40 20.9 33 .7 LKEZNEBVBJ 31 WEST 392 GREFCE-ALBANIA BORDER REGIO ERN MEDITERRANEAN AREA 263 1223 F1 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33 39.0 12 34 58.2 12 22 40.7 1223 BM 68/02/22 9.08 2439909 40.7 N 020.6 E 4.4 12-34-58.2 12-22-40 38.0 RO.9 33 31 WEST **TKESOERAR**1 392 GREECE-ALBANIA BURDER REGIO ERN MEDITERRANEAN ARFA 263 1223 F2 6R 2 22 2439909 40.7 N 20.6 E 31 392 33. 38.0 12 34 58.2 12 22 40.7 1223 8M 68/05/55 9.08 2439909 40.7 N 020.0 E 4.4 12-22-40 12-34-58.2 38.0 PU.9 33 31 WEST LKEZQEBVBJ . 7 392 GPEECE-ALBANIA BORDER REGIO ERN MEDITERRANEAN AREA 263 1223 F3 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33 68/02/22 80.9 38.0 12 34 58.2 12 22 40.7 1223 BM 4.4 020.6 E 40.7 N 2439909 P0.9 12-34-58.2 38.0 12-22-40 33 31 WEST .7 LKEZOFBVBJ ERN MEDITERRANFAN AREA 392 GREECE-ALBANIA BORDER REGIO 263 1223 F4 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33 38.0 12 34 58.2 12 22 40.7 1223 BM 68/02/22 80.9 4.4 2439949 40.7 11 020.6 E 12-34-58.2 12-22-40 PO.9 38.0 33 31 WEST LKEZGEBVBJ 392 GREFCE-ALBANIA BURDER REGIO ERN MEDITERRANEAN ARFA 264 1035 PM 68 1 11 2439867 45.8 N 152.5 E 19 222 56. 56 64.9 310.8 18 19 9.0 18 8 25.8 1035 RM 68/01/11 5.0 45.8 N 152.5 E 2439867 50 18-19-09.0 18-08-25 310.A 64.9 19 JAPA .8 ORWELDIYQW N - KURILES - KAMCHATKA 222 KURILF TSLANDS REGION 264 1035 F1 68 1 11 2439867 45.8 N 152.5 E 19 222 56. 56 64.9 310.8 18 19 9.0 18 8 25.8 1035 BM 68/01/11 45.8 N 152.5 E 5.0 2439807 310.8 18-19-09-0 18-08-25 64.9 19 3484 ORWELDIYGW N - KURILES - KAMCHATKA 222 KURTLE ISLANDS REGION

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